



IDAS™ Quick Guide

“GPS Demonstration”



Version 1.0
April 2009

IDAS™ Quick Guide – GPS Demonstration

Foreword

This GPS demonstration quick guide explains the procedure of setup and demonstration of IDAS™ radios in the AVL application. You can demonstrate to display the GPS position data from IDAS™ radios on the PC monitor in the “Google™ Earth” and/or REVELOC application software. Although REVELOC application software handles the Status message, SDM, Emergency status, GPS data polling, and more to make the demonstration practical to the AVL application.

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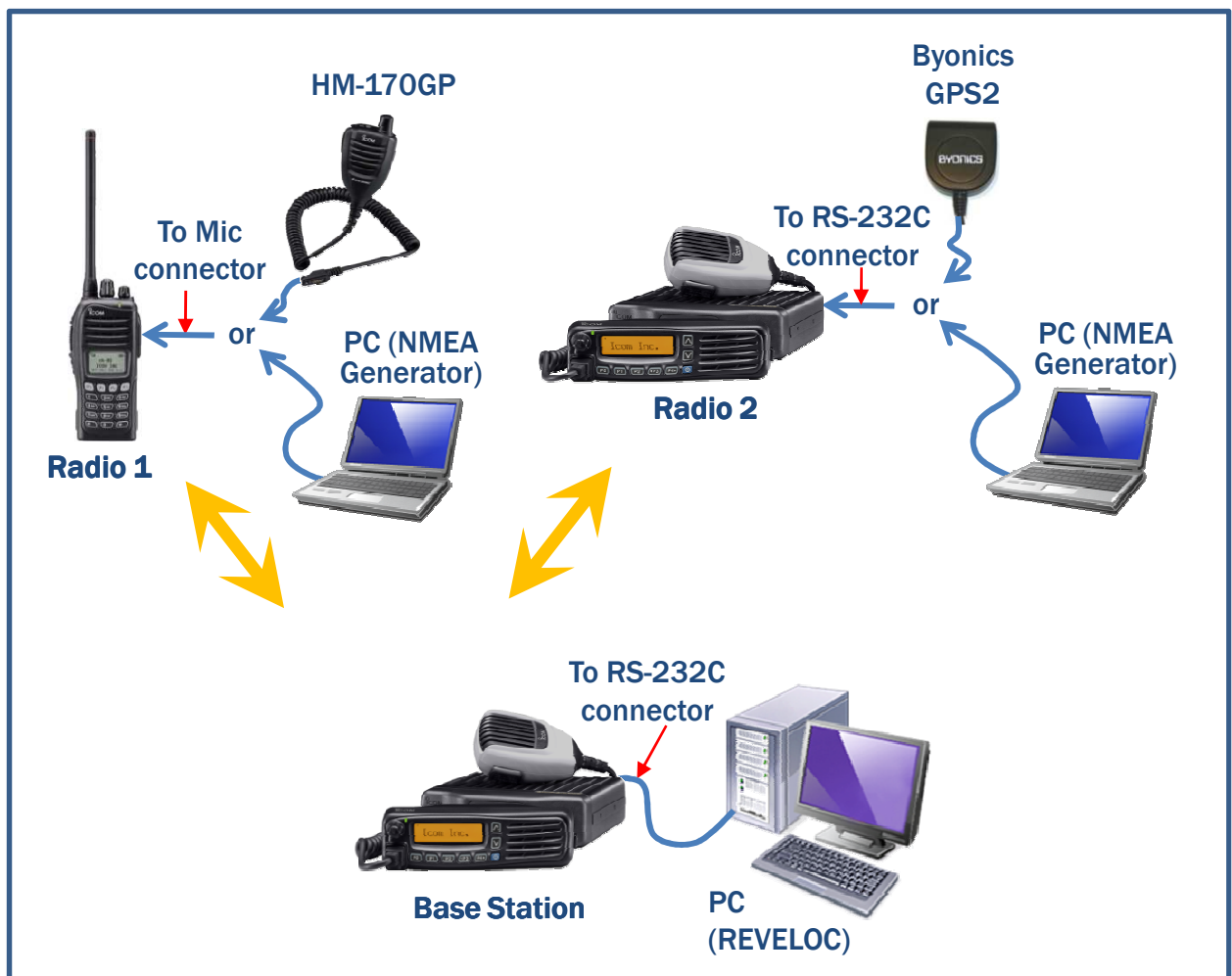
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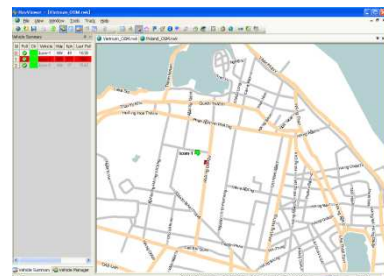
1 Key Equipment for GPS Demonstration

1-1 GPS Demonstration

1-1-1 GPS Demonstration System



Vehicle Location View in Google™ Earth



Vehicle Location View in RevViewer

1 Key Equipment for GPS Demonstration

1-2 Component List for the GPS Demonstration

1-2-1 Key Equipment List

Demonstration		4-1	4-2	4-3	4-4
Model Number	Description	Quantity			

Equipment list for field radio side

IC-F4161DT	UHF* ¹ Digital radio with Digital Unit (Radio 1)	1	1	1	1
	Dummy Load for IC-F4160 series (If required)	(1)	(1)	(1)	(1)
HM-170GP	GPS Speaker-Microphone	1	1	1	1
	Battery Charger	1	1	1	1
IC-F6061D	UHF* ¹ Digital radio with Digital Unit (Radio 2)	1	1	1	1
	Dummy Load for IC-F6060 series (If required)	(1)	(1)	(1)	(1)
	GPS receiver (Byonics GPS2)	1	1	1	1
	Adaptor (5V Regulator)	1	1	1	1
	PC with NMEA generator* ²	(2)	(2)	(2)	(2)
OPC-966/U	Cloning Cable for IC-F4161DT* ²	(1)	(1)	(1)	(1)
	DB9/DB25 cable (and DB9/USB cable)* ²	(1)	(1)	(1)	(1)

Equipment list for base station side

IC-F6061D	UHF* ¹ Digital radio with Digital Unit	1	1	1	2
	Dummy Load for IC-F6060 series (If required)	(1)	(1)	(1)	(2)
	PC with AVL software (REVELOC)	1	1	1	1
	DB9 Female/DB25 Male cable	1	1	1	2

NOTE 1 : For these documents, we have used UHF versions. The same demo can be carried out with VHF radios with the required programming changes (E.g. frequency range).

NOTE 2 : Those equipments are required when use NMEA generator for demonstration.

1-2-2 “icf” files

NOTE : CS-F3160/F5060 Revision 2.5 or later version is required

“icf” file	Descriptions
IDAS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf	For Radio 1 in IDAS™ mode
IDAS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf	For Radio 2 in IDAS™ mode
IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf	For Radio 1 in IDAS™ mode, TX GPS data automatically
IDAS_GPS_Demo_Base_REVELOC_Ver2_0.icf	For the base station in IDAS™ mode
BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf	For Radio 1 in BIIS mode
BIIS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf	For Radio 2 in BIIS mode
BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf	For Radio 1 in BIIS mode, TX GPS data automatically
BIIS_GPS_Demo_Base_REVELOC_Ver2_0.icf	For the base station in BIIS mode

1-2-3 Sample “OSM map” files OSM-Poland.zip

1 Key Equipment for GPS Demonstration

1-3 Application Software

The following software has been used to conduct the demonstration in this quick guide.

1-3-1 AVL software

“REVELOC” from Boyce Industries Pty Ltd

Contact details; Boyce Industries Pty Ltd
Unit 10, 2 St Martins Tce
Buderim Qld 4556



Australia

Telephone: +61(07) 5453 4833

Facsimile: +61(07) 3102 6258

Email: support@boyceindustries.com.au

Web: http://www.boyceindustries.com.au

The AVL software which is described in this IDAS™ Quick Guide – GPS Demonstration, the Reveloc system is developed and distributed by Boyce Industries Pty Ltd.

Boyce Industries provides both general and customized software and mapping solutions for tracking vehicles fitted with a GPS and appropriate communications hardware.

The Reveloc system provides basic functionality that allows one or more vehicles to be tracked on one or more maps via a continuous polling or position on demand mechanism. The key features are;

- Flexible deployment model either on a single PC or across a LAN / WAN via VPN
- Automated or ad-hoc polling model for GPS position requests
- Send and receive status and short data messages
- Mapping engine compatible with a variety of common vector and raster based formats
- Ability to sound an audible alarm upon receipt of an emergency signal as well as broadcast SMS alerts to multiple handsets

1-3-2 NMEA generator (Freeware)

Contact details; Web: <http://homepage2.nifty.com/k8/gps/index.htm>

1-3-3 Google™ Earth* (Freeware)

* Use of Google Earth for mobile GPS tracking in a commercial application is likely to require a Google Earth Pro subscription.

Contact details; Web: <http://earth.google.com/>



1 Key Equipment for GPS Demonstration

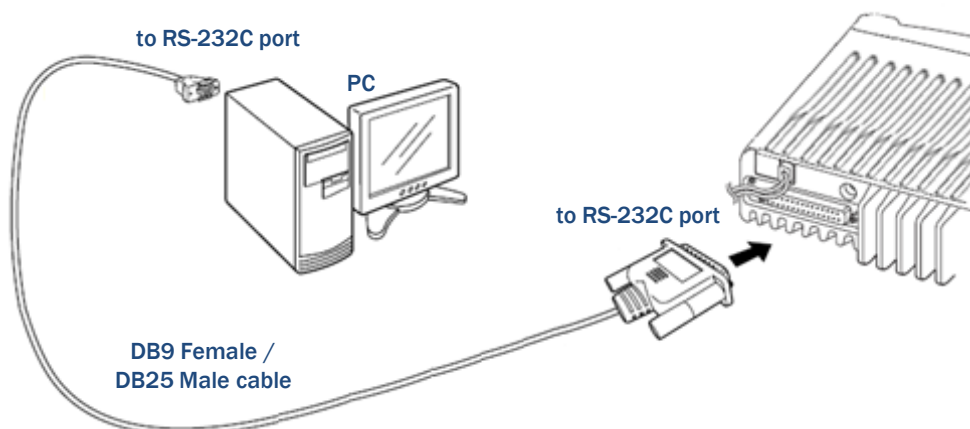
1-4 Connection

1-4-1 Base Station

- Connection

Connect between PC and IC-F6060 series radio by DB Female / DB25 Male cable.

NOTE : USB cable is not recommended for this application.



- Software for PC

Microsoft Windows 2000 or later version

Microsoft Access

REVELOC version 1.7.5 or later

Google Earth

Tatuk Project file (Option)

- “icf” file for Base Station (choose from below depending on mode of your demonstration)

IDAS_GPS_Demo_Base_REVELOC_Ver2_0.icf

BIIS_GPS_Demo_Base_REVELOC_Ver2_0.icf

- PC Requirements

A PC with the following specifications has been used for the preparation of this quick guide.

It is not a minimum specification for the PC for this demonstration, however PC's with lower specifications may cause problems during the demonstration.

OS : Microsoft Windows XP

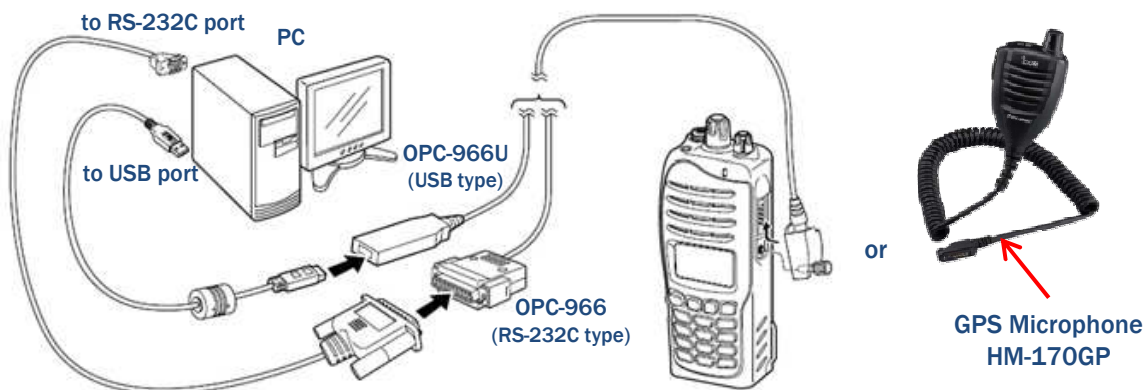
CPU : Intel® Celeron® CPU 2.80GHz

RAM : 1.49 GB RAM

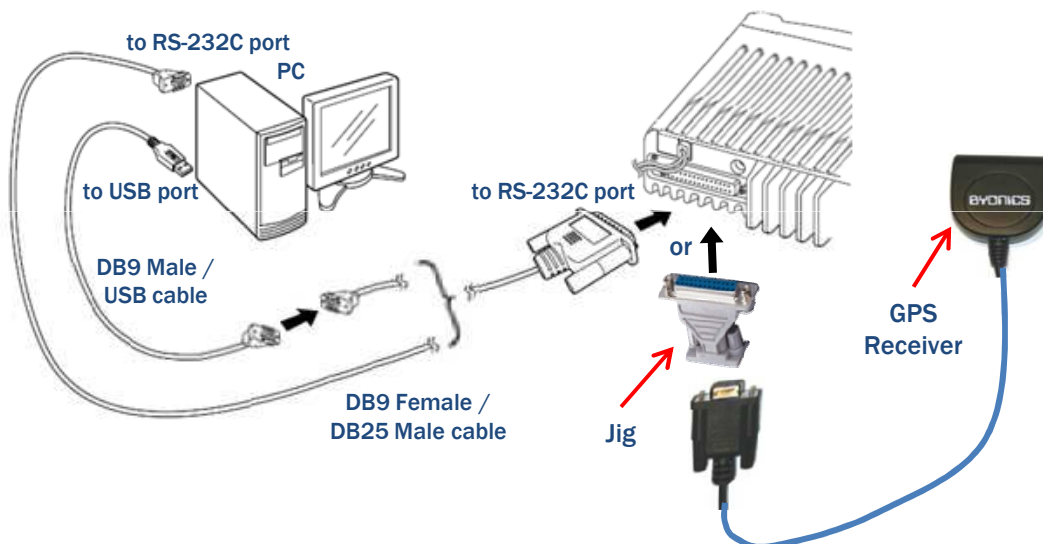
1 Key Equipment for GPS Demonstration

1-4-2 Field Radio

- Connection for a Handheld Radio



- Connection for a Mobile Radio



- Software for PC
 - Microsoft Windows 2000 or later version
 - NMEA generator
- “icf” file for Field Radio (choose from below depending on mode of your demonstration)
 - IDAS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf
 - IDAS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf
 - IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf
 - BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf
 - BIIS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf
 - BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf

2 Cloning settings for GPS demonstration

2-1 Cloning settings

2-1-1 Setup of Programmable Keys for IC-F3160/F4160 Series



2-1-2 Setup of Programmable Keys for IC-F5060/F6060 Series



2 Cloning settings for GPS demonstration

2-2 Cloning Settings for GPS Demonstration in IDAS™ mode

NOTE : The firmware of all IDAS™ radios for this demonstration must be **Revision 2.7** or later. If the firmware of your radio is older then above then please update before setup for this demonstration.

NOTE : The cloning software, **CS-F3160/F5060 Revision 2.5** or later is required to use icf files mentioned below.

When conduct a demonstration in IDAS™ mode then Copy the

IDAS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf or

IDAS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf or

IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf

data into the radios which connected with the GPS Mic, GPS receiver or GPS generator, and the

IDAS_GPS_Demo_Base_REVELOC_Ver2_0.icf

data into the radio to be used as the base station.

NOTE : All cloning operations are performed from the computer's keyboard— the operation required on the transceiver side is;

For IC-F3160/F4160 series:

Connect the cloning cable, OPC-966/966U, to the multi-connector first and then while pushing and holding [P0], rotate [VOL] to turn power ON.

For IC-F5060/F6060 series:

Connect the cloning cable, OPC-1122/1122U, to [MIC] connector first and then push [POWER] to turn power ON.

2-2-1 Memory Channel Setting

Base Station in IDAS™ mode

MR CH	Screen Text	Programmed Condition	Rx ^{*1}	Tx ^{*1}
CH1	IDAS Base	IDAS™ Mode Base Station	f1	f1

Field Radio in IDAS™ mode

MR CH	Screen Text	Programmed Condition	Rx ^{*1}	Tx ^{*1}
CH1	Icom-1 (or Icom-2 or Icom-3) ^{*2}	Field Radio – IDAS™ Mode	f1	f1

^{*1}: f1=453.6750MHz (Default of icf file supplied by Icom.)

You may program frequencies freely according to local regulations if required.

^{*2}: Depending on selection of an icf file. See detail for 2-2-2 Unit ID

2-2-2 Unit ID

IDAS™ Mode

Unit ID	ID Name	Memory CH (ICF file)
5001	IDAS Base	CH1 (IDAS_GPS_Demo_Base_REVELOC_Ver2_0.icf)
1101	Icom-1	CH1 (IDAS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf)
1102	Icom-2	CH1 (IDAS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf)
1103	Icom-3	CH1 (IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf)

2 Cloning settings for GPS demonstration

2-2-3 Status List

IDAS™ Mode

No.	RX Status	TX Status
1	In Service	In Service
2	Out to Lunch	Out to Lunch
3	Out of Serv.	Out of Serv.
≈	≈	≈
100	GPS Request	GPS Request
Emergency	Emergency	Emergency
Man Down	Man Down	Man Down

2-2-4 SDM List

Field Radio - IDAS™ Mode

No.	SDM
1	Accepted
2	Noted
3	On the way
4	5min Later
5	10min Later
6	15min Later
7	
8	

2 Cloning settings for GPS demonstration

2-3 Cloning Settings for GPS Demonstration in BIIS mode

NOTE : The firmware of all IDAS™ radios for this demonstration must be **Revision 2.7** or later. If the firmware of your radio is older then above then please update before setup for this demonstration.

NOTE : The cloning software, **CS-F3160/F5060 Revision 2.5** or later is required to use icf files mentioned below.

When conduct a demonstration in BIIS mode then Copy the
BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf, or
BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf or
BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf
data into the radios with the GPS Mic, GPS receiver or GPS generator, and the
BIIS_GPS_Demo_Base_REVELOC_Ver2_0.icf
data into the radio to be used as the base station.

NOTE : All cloning operations are performed from the computer's keyboard— the operation required on the transceiver side is;

For IC-F3160/F4160 series:

Connect the cloning cable, OPC-966/966U, to the multi-connector first and then while pushing and holding [P0], rotate [VOL] to turn power ON.

For IC-F5060/F6060 series:

Connect the cloning cable, OPC-1122/1122U, to [MIC] connector first and then push [POWER] to turn power ON.

2-3-1 Memory Channel Setting Base Station in BIIS mode

MR CH	Screen Text	Programmed Condition	Rx ^{*1}	Tx ^{*1}
CH1	BIIS Base	BIIS Mode Base Station	f1	f1

Field Radio in BIIS mode

MR CH	Screen Text	Programmed Condition	Rx ^{*1}	Tx ^{*1}
CH1	BIIS-1 (or BIIS-2 or BIIS-3)* ²	Field Radio – BIIS Mode	f1	f1

*¹: f1=453.6750MHz (Default of icf file supplied by Icom.)

You may program frequencies freely according to local regulations if required.

*²: Depending on selection of an icf file. See detail for 2-3-2 ID Code

2-3-2 ID Code BIIS Mode

ID Code	ID Name	Memory CH (ICF file)
1001	BIIS Base	CH1 (BIIS_GPS_Demo_Base_REVELOC_Ver2_0.icf)
1201	BIIS-1	CH1 (BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf)
1202	BIIS-2	CH1 (BIIS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf)
1203	BIIS-3	CH1 (BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf)

2 Cloning settings for GPS demonstration

2-3-3 Status List

BIIS Mode

No.	RX Status	TX Status
1	In Service	In Service
2	Head to Pick	Head to Pick
3	In the Queue	In the Queue
4	RTN to Base	RTN to Base
5	Out to Lunch	Out to Lunch
~~~~~		
19	Power OFF	Power OFF
20		
21		
22	Emergency	Emergency
23	Power ON	Power ON
24	GPS Request	GPS Request

### 2-3-4 SDM List

#### Field Radio - BIIS Mode

No.	SDM
1	Accepted
2	Noted
3	On the way
4	5min Later
5	10min Later
6	15min Later
7	
8	

## 3 PC settings for GPS demonstration

### 3-1 PC settings for RevAdmin

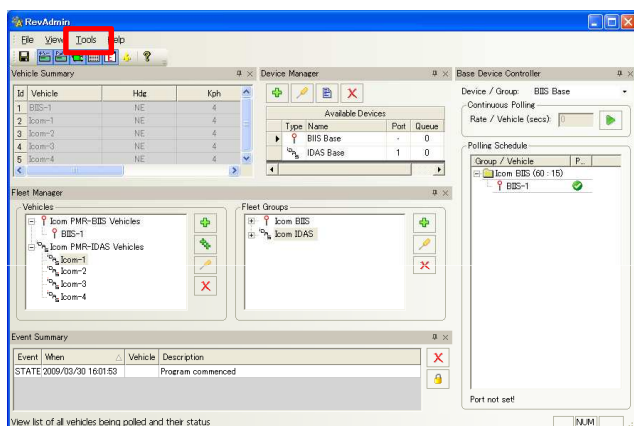
#### 3-1-1 Install the Reveloc Administrator software

**NOTE:** Follow the instructions in the RevAdmin User Manual which supplied with the software.

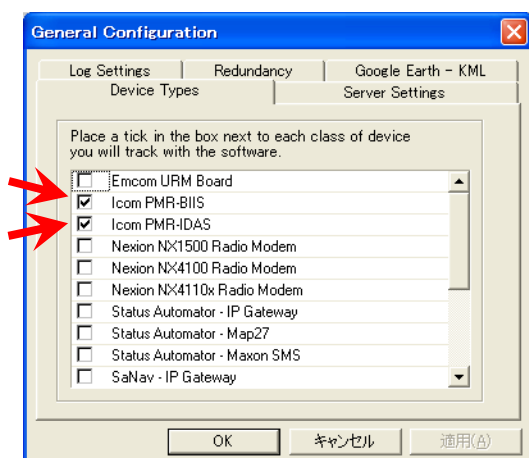
#### 3-1-2 General Configuration

##### ➤ Device type setting

- ① Click the  icon to start RevAdmin.
- ② Select **General Configuration** from **Tools** in the Menu Bar. General Configuration window appears.

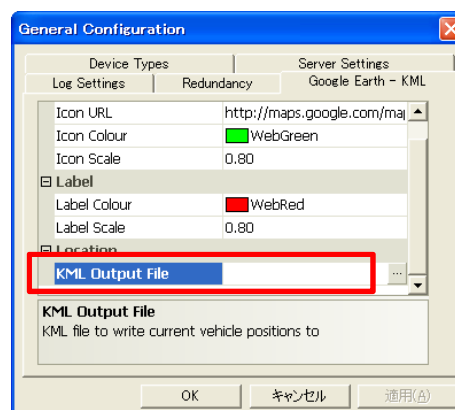


- ③ Click **“Device Types”** tab. Select **“Icom PMR-BIIS”** and/or **“Icom PMR-IDAS”** from the Device Type.



##### ➤ Set the location to store a KML Output File

- ① Click **“Google Earth – KML”** tab.
- ② Enter or select a file to output the appropriately formatted data to display on Google Earth.



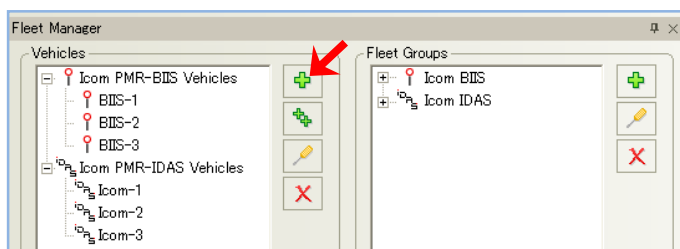
### 3 PC settings for GPS demonstration

#### 3-1-3 Fleet Manager Settings

All devices that will be used in conjunction with Reveloc must be setup through the **Fleet Manager** interface. Details for each vehicle are stored in a Microsoft Access database.

##### ➤ Adding a Vehicle

- ① New devices can be set up by clicking the **Add** button in the Vehicle section. This should result in a blank Vehicle Edit window appearing.



- ② Enter the Vehicle Name.  
This will be used throughout the application to reference the vehicle
- ③ Select the Mobile Type
- ④ Enter the Mobile ID

##### <For BIIS mode>

This should be the same as the ID Code of each radio. This is the identification string for the mobile device.

##### <For IDAS™ mode>

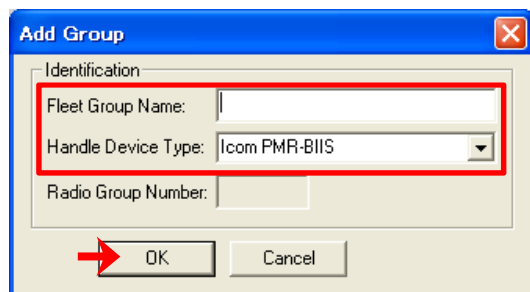
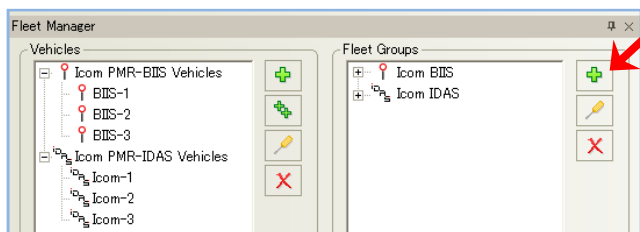
This should be the same as the Unit ID of each radio. This is the identification string for the mobile device.

- ⑤ Click OK when the appropriate information has been entered.

### 3 PC settings for GPS demonstration

#### ➤ Adding a Vehicle Fleet

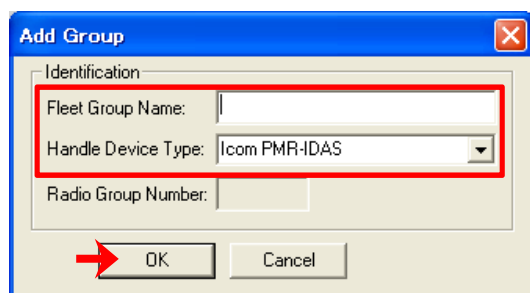
- ① New devices can be set up by clicking the  Add button in the **Fleet Group** section. This should result in an Add Group window appearing.



- ② Type in an appropriate Fleet Group Name that summarizes the type of vehicles that will be grouped.
- ③ Choose the appropriate Handle Device Type for vehicles in this group.

#### <For BIIS mode>

Select "Icom-PMR-BIIS" from the Handle Device Type dropdown list*.



#### <For IDAS™ mode>

Select "Icom-PMR-IDAS" from the Handle Device Type dropdown list*.

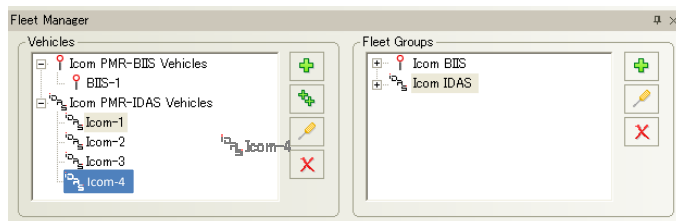
*Availability of the number of "Handle Device Type" depends on the Device Types set up in the General Configuration.

- ④ Click OK when the appropriate information has been entered.

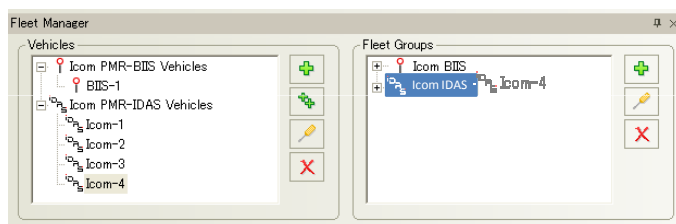
#### ➤ Adding a Vehicle to a Fleet

Vehicles can be associated with a Fleet as follows

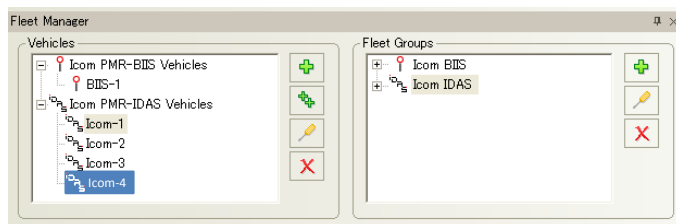
- ① Left click on the vehicle(s) you wish to associate with the fleet and hold down the mouse button.
- ② As you drag the vehicle across to the Fleet Groups tree the cursor will change shape.



- ③ When the vehicle is over in the Fleet Groups tree, it will highlight the entry under the cursor.



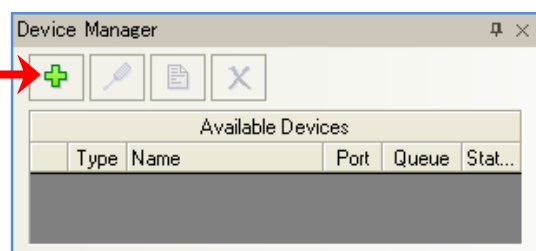
- ④ Once the appropriate Fleet Group is highlighted, release the mouse button to drop the vehicle onto that fleet.



### 3 PC settings for GPS demonstration

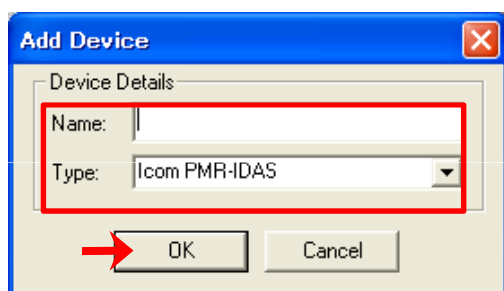
#### 3-1-4 Device Manager Settings for IDAS™ mode

The Device Manager is used to configure the base radio(s) / devices that are going to be used for communicating with the various mobiles.



##### ➤ Adding a Device

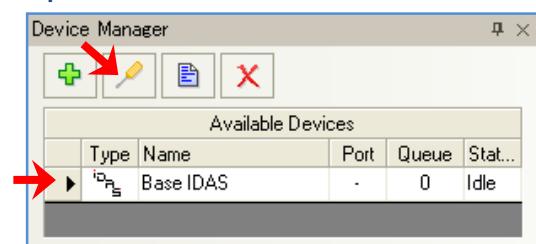
- ① Click on the Device Manager's  Add button. This should result in an Add Device window appearing.



- ② Type in a short Name to describe the base radio that you are setting up.
- ③ Select the Type of base radio device Icom PMR-IDAS from the dropdown list.
- ④ Click OK.

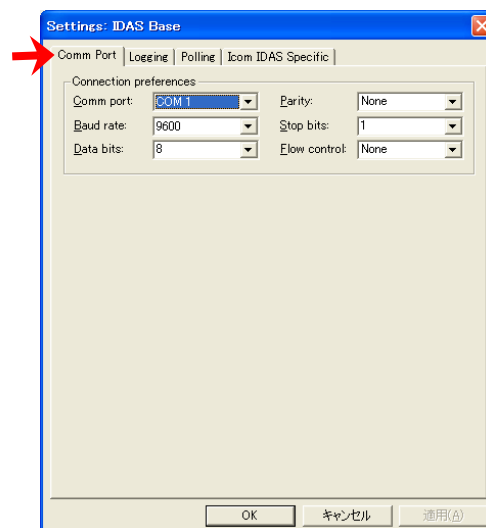
##### ➤ Configuring a Device

- ① Select an appropriate Type in the Device Manager window. e.g. Base IDAS.
- ② Click  Properties button to open Properties.

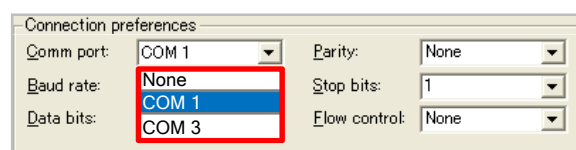


- ③ Settings: Base IDAS window appears.

- ④ Click Comm Port Tab.

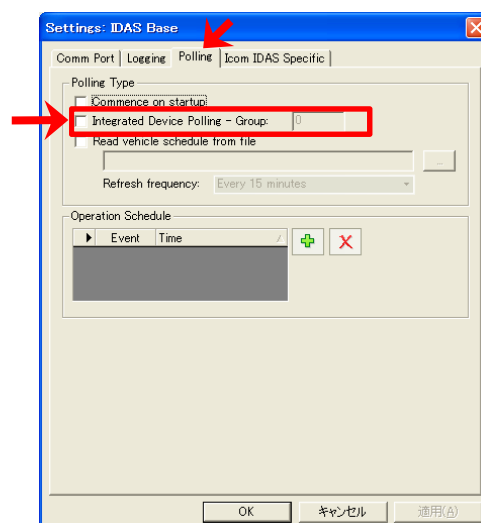


- ⑤ Select the appropriate Comm port from the drop down list.



##### ➤ Configuring a Polling

- ① Click Polling Tab.
- ② Make sure that the Integrated Device Polling – Group entry is NOT ticked



### 3 PC settings for GPS demonstration

#### ➤ Configuring Icom IDAS Specific

- ① Click Icom IDAS Specific Tab.

Settings: Base IDAS

Comm Port | Logging | Polling | Icom IDAS Specific

Fleet Settings

Common Id: 1

Base Id: 5001

Command

Version 1

Version 2

Special Status Mapping

Ignition On: 0

Emergency: 0

Ignition Off: 0

GPS Poll: 0

Status Messages

Status	Message
1	In Service
2	Out to Lunch
3	Out of Serv.
4	
5	
6	
7	
8	
9	
10	
11	
12	

OK キャンセル 適用(A)

- ② Select Version 2 from the Command.

- ③ Enter the Unit ID in the icf file to the left of Base Id box.

**NOTE :** The UNIT ID must be different for the transmitting radio and base station radio, otherwise the GPS data to own UNIT ID cannot be received.

Special Status Mapping

Ignition On: 98

Emergency: 0

Ignition Off: 99

GPS Poll: 100

- ④ Enter the Status number of Power On Status in the icf file to the left of Ignition On box.
- ⑤ Enter the Status number of Power Off Status in the icf file to the left of Ignition Off box.
- ⑥ Enter the Status number of GPS Request Status in the icf file to the left of GPS Poll box.

Status Messages

Status	Message
1	In Service
2	Out to Lunch
3	Out of Serv.
4	
5	
6	
7	
8	
9	
10	
11	
12	

- ⑦ Enter the messages (from F3160/F5060 cloning soft ware) to the message box in the Status Message.

**NOTE :** Numbers under **Status** are corresponding to the Status number in the radio.

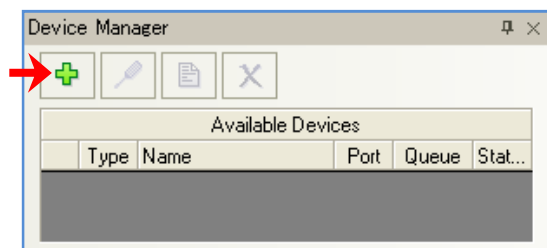
**NOTE :** Up to 100 status message can be stored in this setting window.

- ⑧ Click OK.

### 3 PC settings for GPS demonstration

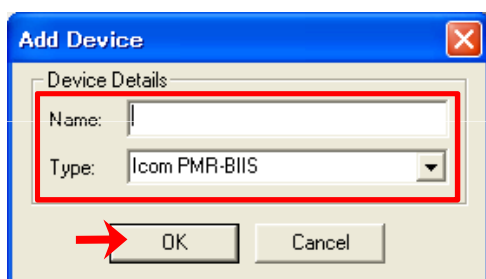
#### 3-1-5 Device Manager Settings for BIIS mode

The Device Manager is used to configure the base radio(s) / devices that are going to be used for communicating with the various mobiles.



##### ➤ Adding a Device

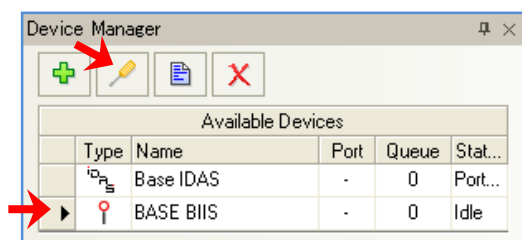
- ① Click on the Device Manager's  Add button. This should result in an Add Device window appearing.



- ② Type in a short Name to describe the base radio that you are setting up.
- ③ Select the Type of base radio device Icom PMR-BIIS from the dropdown list.
- ④ Click OK.

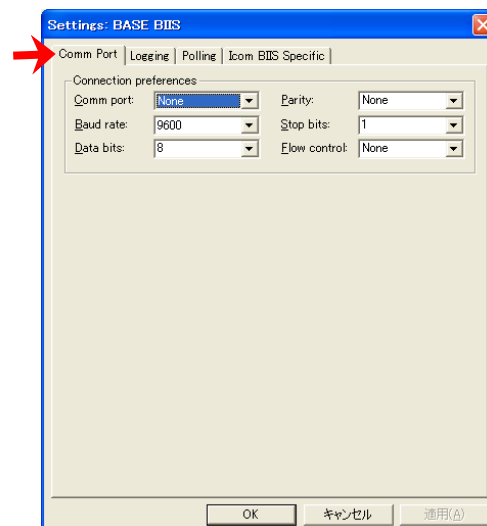
##### ➤ Configuring a Device

- ① Select an appropriate Type in the Device Manager window. e.g. Base IDAS.
- ② Click  Properties button to open Properties.

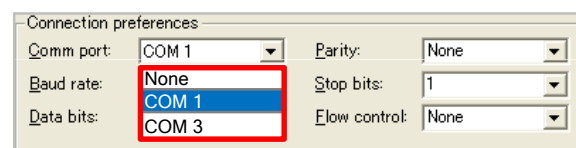


- ③ Settings: Base BIIS window appears.

- ④ Click Comm Port Tab.

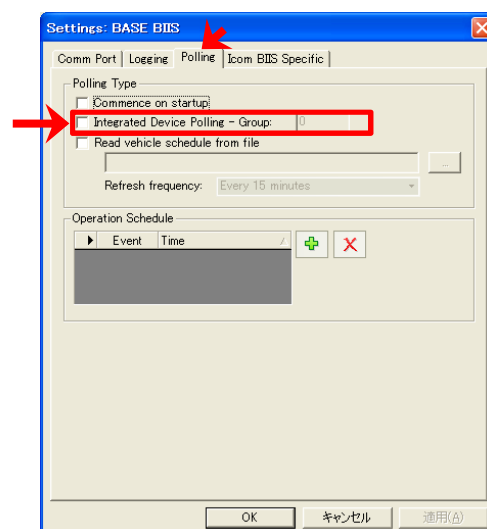


- ⑤ Select the appropriate Comm port from the drop down list.



##### ➤ Configuring a Polling

- ① Click Polling Tab.
- ② Make sure that the Integrated Device Polling – Group entry is NOT ticked



### 3 PC settings for GPS demonstration

#### ➤ Configuring Icom BIIS Specific

##### ① Click Icom BIIS Specific Tab.

Settings: BIIS Base

Comm Port | Logging | Polling | Icom BIIS Specific

Fleet Settings

Common Id: 3822

Base Id: 1001

Command

☒ Version 1

☐ Version 2

Special Status Mapping

Ignition On: 23

Emergency: 22

Ignition Off: 19

Status Messages

Status	Message
1	In Service
2	Head to Pick
3	In the Queue
4	RTN to Base
5	Out to Lunch
6	
7	
8	
9	
10	
11	
12	

OK キャンセル 適用(A)

##### ② Select Version 1 from the Command.

##### ③ The default Base ID is 1001.

Special Status Mapping

Ignition On: 23

Emergency: 22

Ignition Off: 19

##### ④ Enter the Status number of Power On Status in the icf file to the left of Ignition On box.

##### ⑤ Enter the Status number of Power Off Status in the icf file to the left of Ignition Off box.

##### ⑥ Enter the Status number of Emergency Status in the icf file to the left of Emergency box.

##### ⑦ Type the "Emergency" in the message box 22 in the Status Message.

Status	Message
14	
15	
16	
17	
18	
19	
20	
21	
22	Emergency
23	
24	

Status	Message
1	In Service
2	Head to Pick
3	In the Queue
4	RTN to Base
5	Out to Lunch
6	
7	
8	
9	
10	
11	
12	

##### ⑧ Enter the messages (from F3160/F5060 cloning soft ware) to the message box in the Status Message.

**NOTE :** Numbers under **Status** are corresponding to the Status number in the radio.

**NOTE :** Up to 24 status message can be stored in this setting window.

##### ⑨ Click OK.

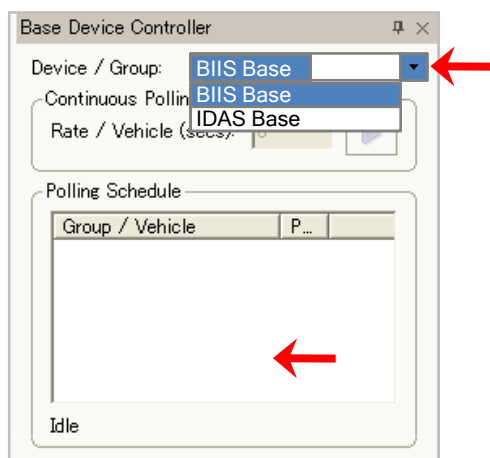
### 3 PC settings for GPS demonstration

#### 3-1-6 Base Device Controller Settings

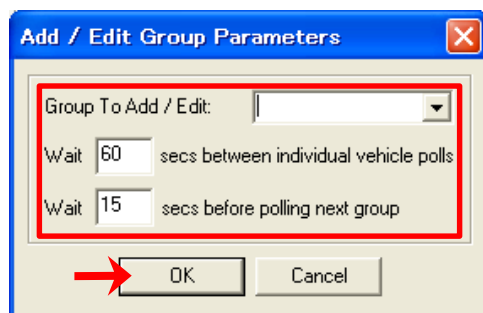
The Base Device Controller can be accessed from either the  Device Controller button or from the **Base Device Controller...** item on the **View** menu. An unpopulated example of this dialog is shown below.

##### ➤ Adding a Fleet Group

- ① Select the base radio to use from the Device / Group drop down list

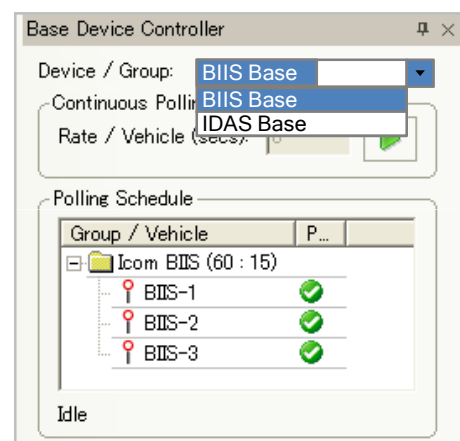
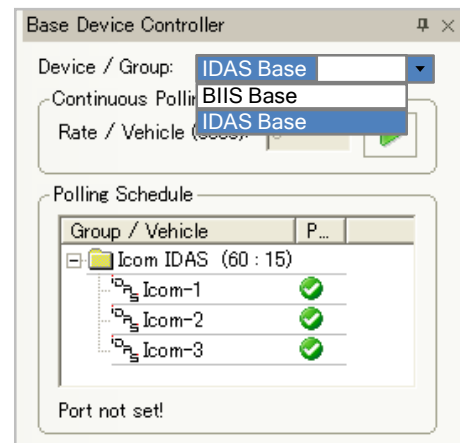


- ② Right click in the Polling Schedule section. **Add / Edit Group Parameters** window appears.



- ③ Select the Fleet Group to add from the **Group To Add / Edit** drop down list.
- ④ Type in the appropriate time to wait in between polling each individual vehicle.
- ⑤ Type in the appropriate time to wait before polling the next group in the list or re-polling the fleet group if it is the only one
- ⑥ Click **OK**.

- ⑦ The Fleet Group should now be added to the Polling Schedule of the selected device.



## 3 PC settings for GPS demonstration

### 3-2 PC settings for RevViewer

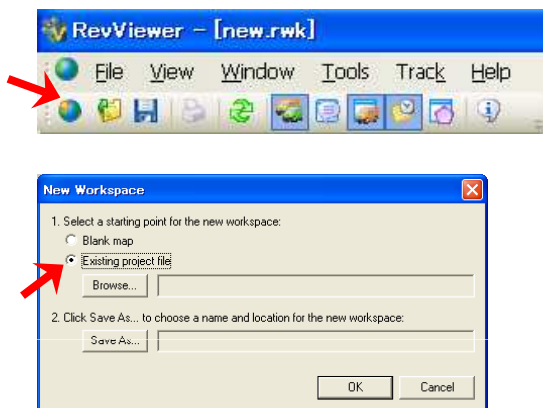
#### 3-2-1 Install the RevViewer software

**NOTE:** Follow the instructions in the RevViewer User Manual which is supplied with the software.

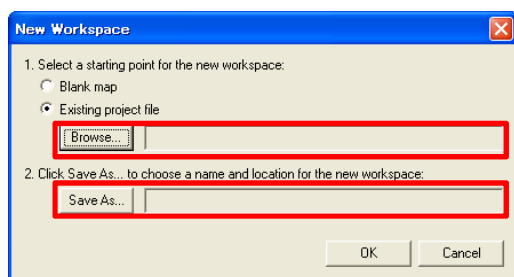
#### 3-2-2 Setting Up Maps (Workspaces)

##### ➤ Creating a New Workspace

- 1 Select New from the file menu or the New button from the Main Toolbar. A window similar to the one below should pop up.



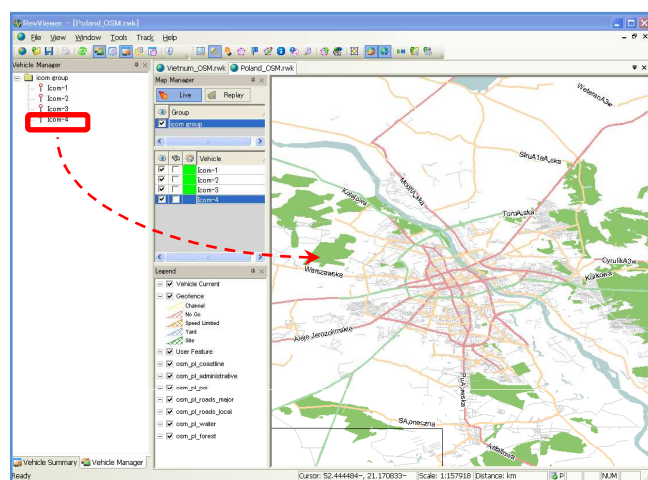
- 2 Select the Existing project file option.



- 3 Click "Browse ..." to select an appropriate TTKGP file*.  
* A map covers the area where you wish to demonstrate.
- 4 Click Save As... button and select a filename and location to save the new workspace to.
- 5 Click OK.

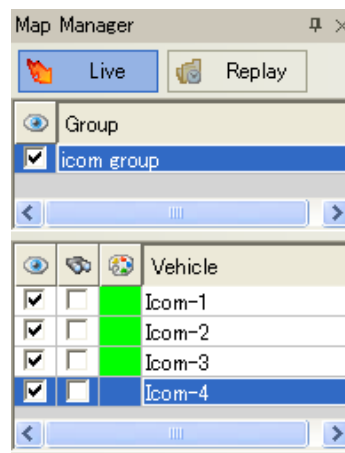
#### 3-2-3 Associating a Fleet with a Workspace

- 1 Click  Vehicle Manager button to display the Vehicle Manager window.
- 2 Click on the Fleet containing the vehicle Manager and while still holding down the left mouse button, start dragging it toward the appropriate workspace.
- 3 Once you are over the appropriate workspace release the mouse button to drop the fleet onto it.



- 4 Click  Map Manager button to display the Map Manager window. The fleets should now appear in the list of vehicles associated with the Workspace's map Manager.

**NOTE:** The individual vehicles can be associated with a map in a similar manner.



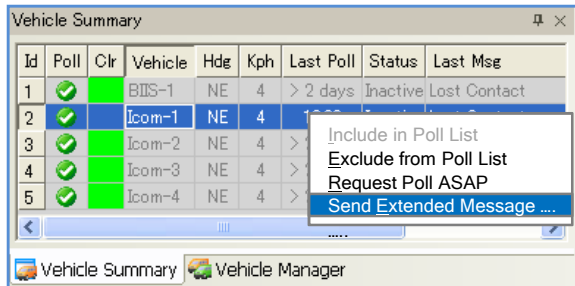
---

## 3 PC settings for GPS demonstration

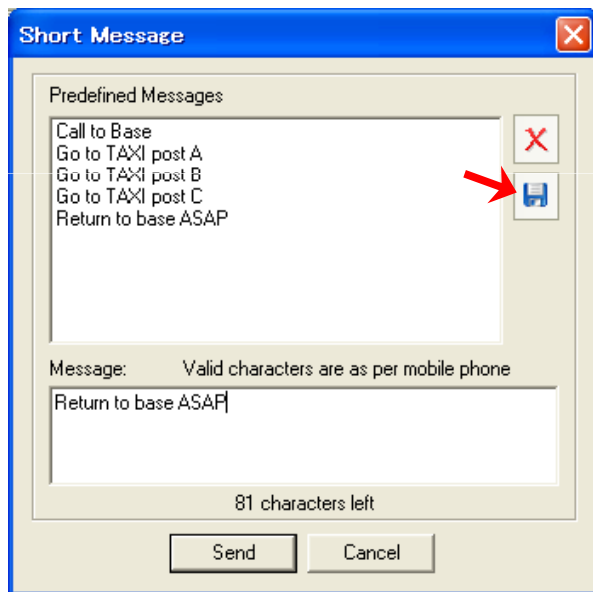
---

### 3-2-4 Predefined Messages

- ① Select a vehicle in the Vehicle Summary window in the RevViewer.
- ② Click the right button to see drop down menu.
- ② Select **Send Extended Message ....**



- ③ The Short Message window appears



- ④ Write a message in the Message box.

**NOTE :** The Predefined messages will available in both IDAS™ and BIIS mode.

**NOTE :** Up to 100 characters message in IDAS™ mode, and up to 95 characters message in BIIS mode can be sent.

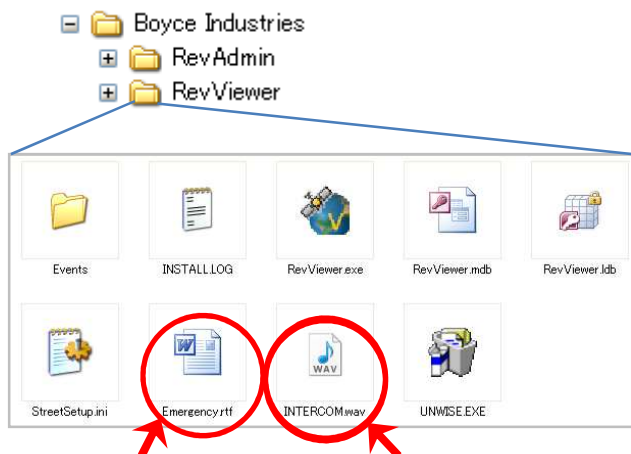
- ⑤ Click  Save button to save the message in the “Predefined Message” box.
- ⑥ Repeat ④ and ⑤ to add more predefined messages.

### 3 PC settings for GPS demonstration

#### 3-2-5 Emergency Alert Settings

➤ An audible alert

- ① Prepare a **WAV** sound file that you wish to use for the alert.
- ② Copy the file to the folder where RevViewer is installed.



RTF file

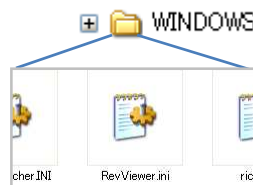
WAV file

➤ An RTF document for the Emergency Procedure

- ① Create an **RTF** document that you wish to use for the Emergency Procedure
- ② Copy the file to the folder where RevViewer is installed.

➤ RevViewer.ini file

- ① Using Notepad or similar text editor, open the **RevViewer.ini** file located in the Windows folder.



```
SQLSource=  
[Configuration]  
InstallFolder=C:\Program Files\Boyce Industries\RevViewer  
LocalDB=C:\Program Files\Boyce Industries\RevViewer\RevViewer.mdb  
AlertFile=C:\Program Files\Boyce Industries\RevViewer\INTERCOM.wav  
ProcedureFile=C:\Program Files\Boyce Industries\RevViewer\Emergency.rtf
```

- ② Navigate to the **[Configuration]** section.
- ③ Find the **AlertFile =** entry and type in the full path to the WAV file. e.g.  
**AlertFile=C:\Program Files\Boyce Industries\RevViewer\Siren.wav**
- ④ Now find the **ProcedureFile =** entry and type in the full path to the RTF file. e.g.  
**ProcedureFile = C:\Program Files\Boyce Industries\RevViewer\Emergency.rtf**
- ⑤ Save the ini file and close NotePad.

## 3 PC settings for GPS demonstration

### 3-3 PC Settings for Google™ Earth

#### 3-3-1 Install the map software “Google™ Earth”

- ① Visit <http://earth.google.com/>
- ② Download “Google™ Earth”* then install it.  
* Google™ Earth is a freeware

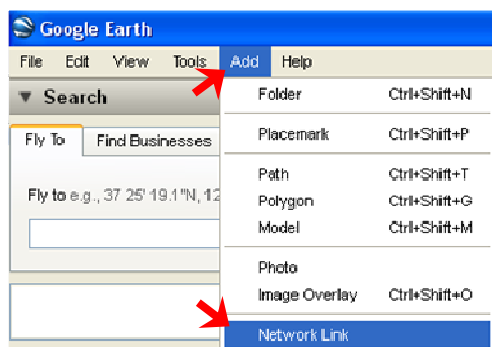
**NOTE :** Use of Google™ Earth for mobile GPS tracking in a commercial application is likely to require a Google™ Earth Pro subscription.

#### 3-3-2 Google™ Earth Network Link Settings

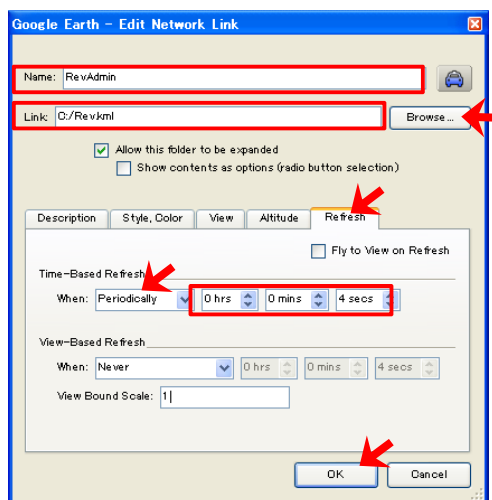
##### ➤ Refresh Time Period

Google™ Earth Network Link will periodically refresh from the RevAdmin kml file. It allows the vehicle's location icon on the Google™ Earth to update automatically.

- ① Start Google™ Earth
- ② Select Network Link from the drop down menu in the Add menu.



- ③ Edit Network Link window appears.



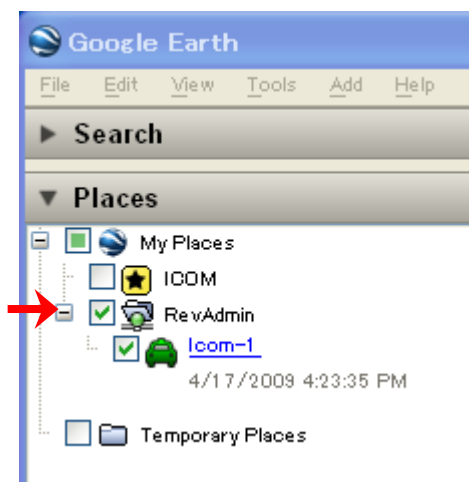
- ④ Enter the desired name
- ⑤ Click Browse to choose the KLM file which you have set in the 3-1-2 for the Link.
- ⑥ Click on the Refresh tab.
- ⑦ Select “Periodically” from the pull down list of Time-Based refresh.
- ⑧ Set the desired interval to refresh the location in the map.
- ⑨ Click OK.

#### 3-3-3 Google™ Earth Place Mark Icon Settings

##### ➤ Select a Place Mark Icon from Google™ Earth

When the RevAdmin has been run once, then the location icon will be added to the place tree view in Google™ Earth

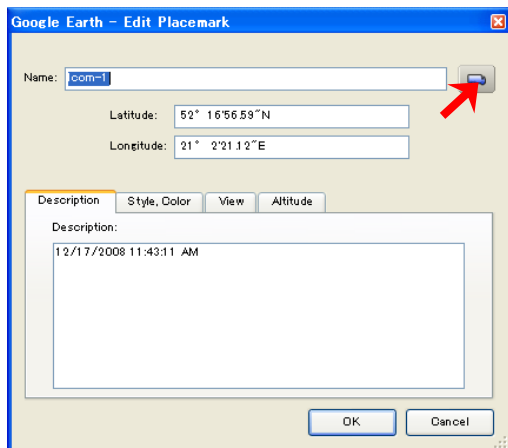
- ① Select the RevAdmin in the place tree view.
- ② Click the Properties in the Edit menu.



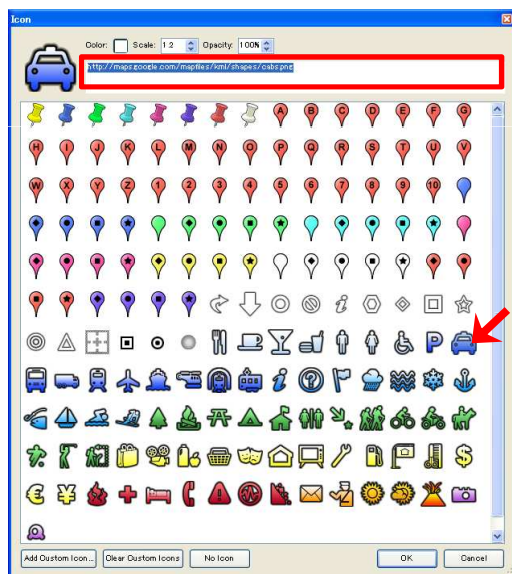
### 3 PC settings for GPS demonstration

- ③ **Google Earth – Edit Placemark** window appears

- ④ Click the icon at the right of the Name field



- ⑤ **Icon** window appears



- ⑥ Select the desired icon from the list.  
The selected icon will be displayed in the top left corner.

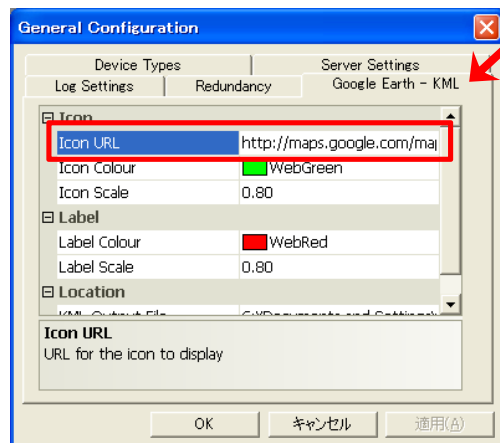
- ⑦ Select and copy the URL.

- Open REVELOC application software  
⑧ Click the  icon to start RevAdmin.

- ⑨ Select **General Configuration** from Tools in the Menu Bar. General Configuration window appears.

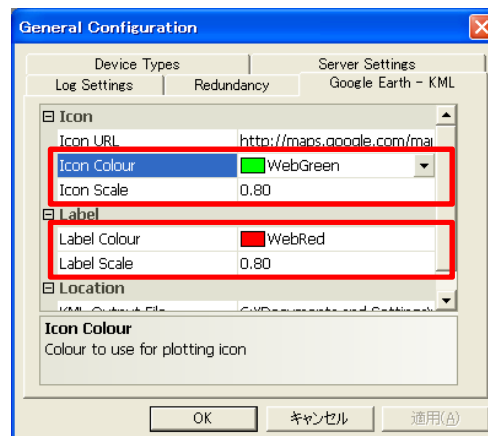
- ⑩ Click **Google Earth – KML** tab.

- ⑪ Paste the selected Placemark URL to the Icon URL box.



- ⑫ Set the color and scale of the icon

- ⑬ Set the color and scale of the label



- ⑭ Click OK

## 4 GPS Demonstration

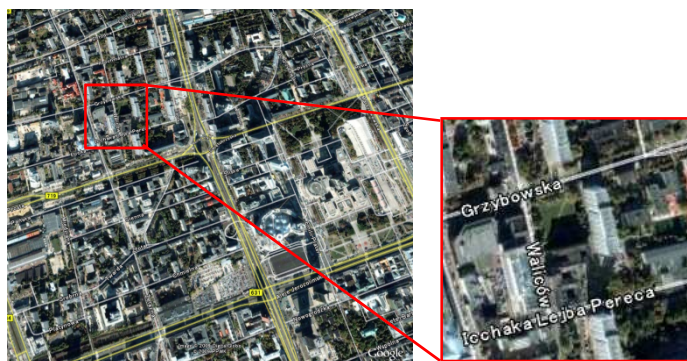
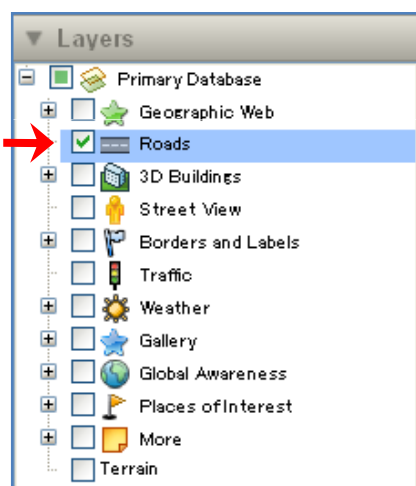
### 3-3-4 Additional Layer Setting



Google™ Map without additional Layer

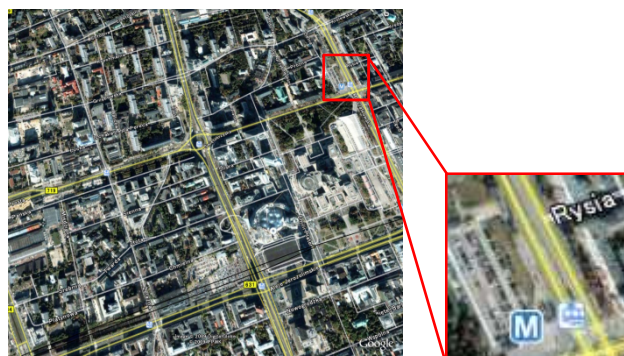
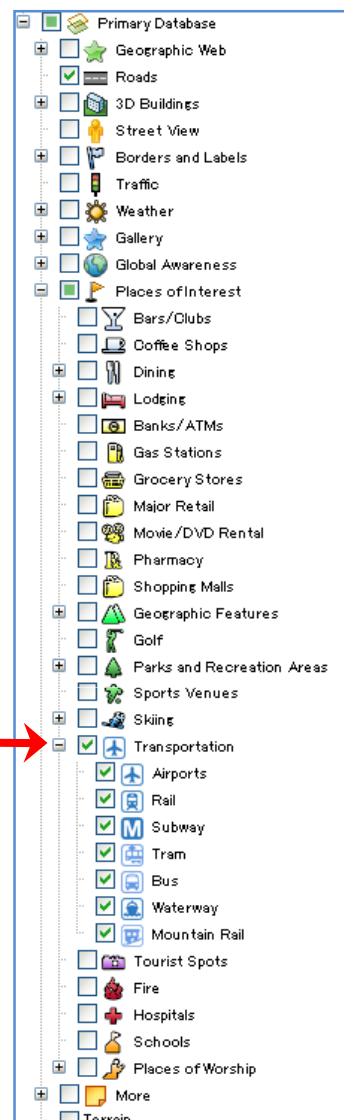
- ① Select the Road Layer to be added by clicking the ☒ mark in the box left of the icon and Roads.

If an undesired box has the ☒ mark, then click it to remove the mark.



Added roads and names

- ② Select the Transportation Layer to be added by clicking the ☒ mark in the box left of the icon and Transportation.



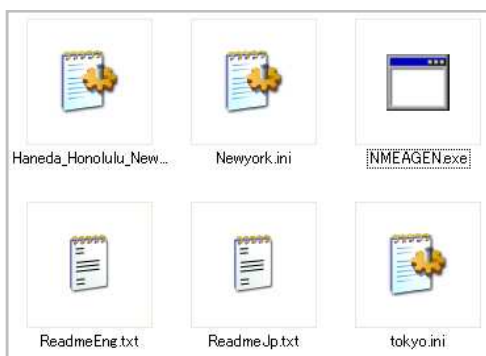
Added Metro and train station icons

## 3 PC settings for GPS demonstration

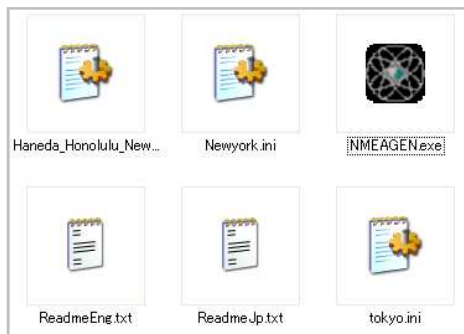
### 3-4 PC settings for NMEA generator

#### 3-4-1 Install the GPS data generator software “NMEA generator”

- ① Visit <http://homepage2.nifty.com/k8/gps/index.htm>
- ② Download the “NMEA generator”  
* “NMEA generator” is a freeware
- ③ Extract the “NMEAGEN107.zip”.



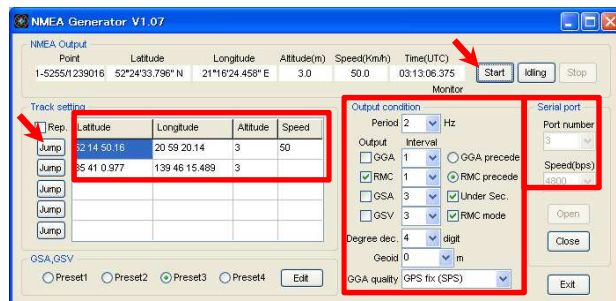
- ④ Open and install the NMEAGEN.exe.



- ⑤ Open and read the ReadmeEng.txt file before starting the NMEAGEN.exe.

**NOTE :** Depending on your version of Windows, installation might be different.

- ⑥ Open the “NMEAGEN.exe”. by clicking the  icon. The window below appears.



#### 3-4-2 Setting Up NMEA Generator

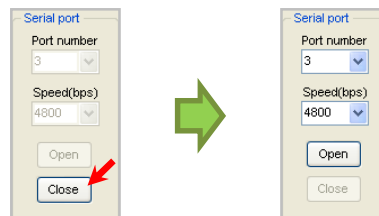
- ① Enter the Latitude e.g. 52 14 50.61N and the Longitude e.g. 20 59 20.14E in Track setting for the sample map.

**NOTE :** The location data in Track setting should be entered at least 2 position data.

- ② Set the Output condition as below.

Output: RMC

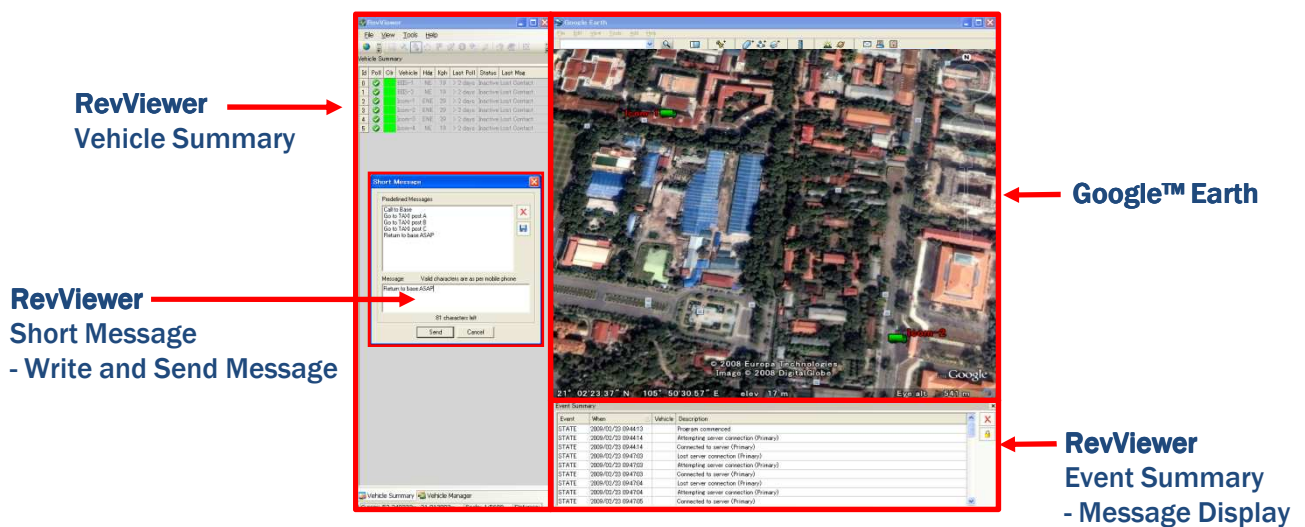
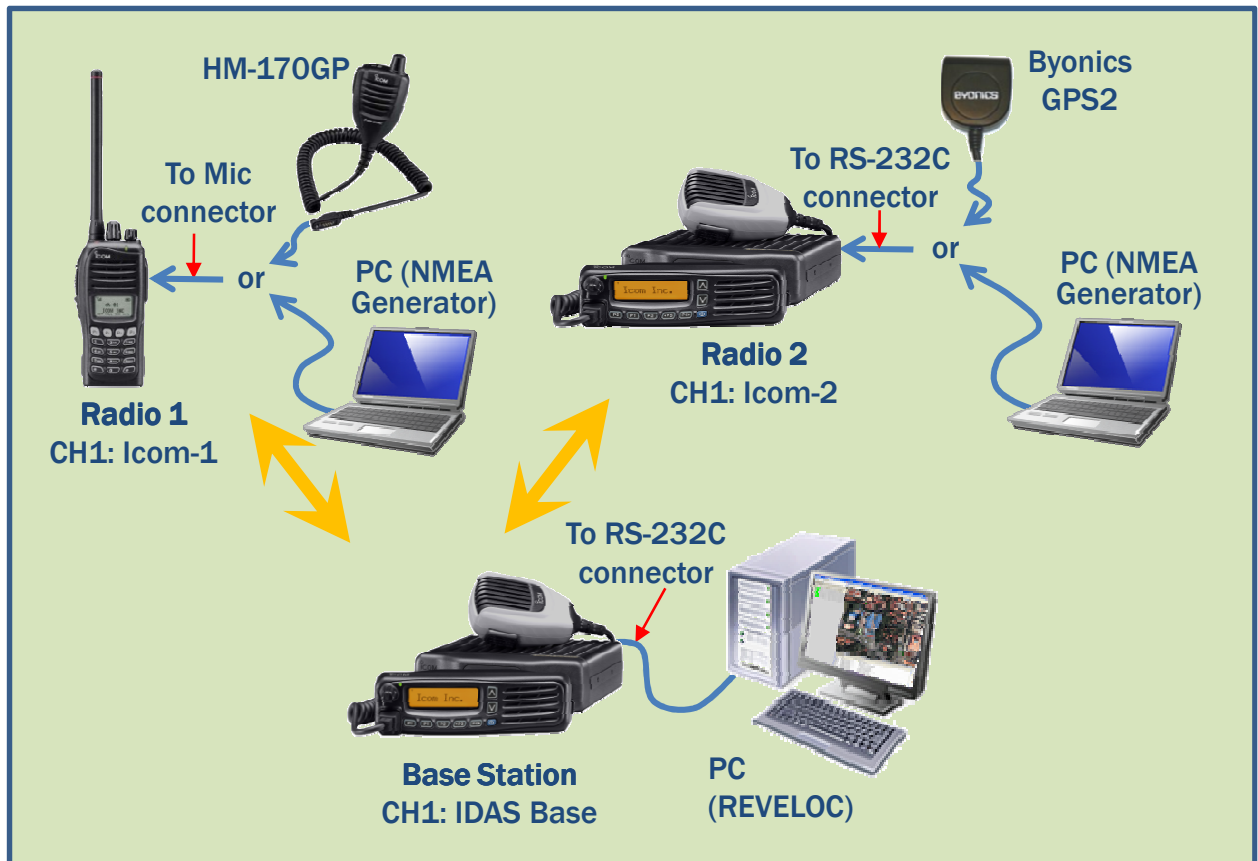
- ③ Click Close button to close the Serial port to set the Serial port.



- ④ Set the appropriate Serial port number and speed for the system.  
* Default setting value is 4800.
- ⑤ Open the port by clicking the Open button.
- ⑥ Click the Jump button to transfer Latitude and Longitude data to the NMEA Output.
- ⑦ Click the Start button to start sending data to the serial port.

## 4 GPS Demonstration

### 4-1 GPS demonstration in IDAS™ mode with Google™ Earth



Vehicle Location View in Google™ Earth & Status Message and SDM Display in RevViewer

## 4 GPS Demonstration

### 4-1-1 Preparation

#### ➤ Base Station

- ① Push and hold [①] Power Switch for 1 sec. to turn power ON.
- ② Push [Λ] CH Up or [V] CH Down to select the memory channel CH1 (IDAS Base).

#### ➤ Radio 1

- ① Rotate [VOL] to turn power ON.
- ② Rotate [ROTARY SELECTOR] to select the memory channel CH1 (Icom-1).
- ③ Radio 1 (Icom-1) will transmit "Power ON" status message to the base station automatically.

#### ➤ Radio 2

- ① Push and hold [①] Power Switch for 1 sec. to turn power ON.
- ② Push [Λ] CH Up or [V] CH Down to select the memory channel CH1 (Icom-2).
- ③ Radio 2 (Icom-2) will transmit "Power ON" status message to the base station automatically.

#### ➤ Open REVELOC application software

- ① Click the  icon to start RevAdmin.
- ② Click the  icon to start RevViewer.

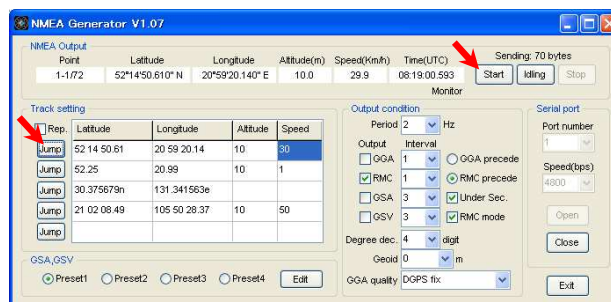
**NOTE :** The RevAdmin should be started before the RevViewer start.

**NOTE :** When change setup in RevAdmin then you may necessary to click  Refresh button in the RevViewer to refresh the Job Summary and Vehicle position information before start RevViewer properly.

**NOTE :** When conduct a demonstration with NMEA generator then proceed to open NMEA generator software.

#### ➤ Open NMEA generator software

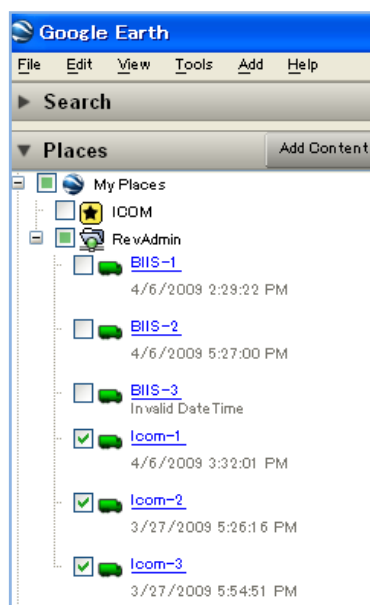
- ① Click the  icon to start NMEA generator .
- ② Click the Jump button to transfer Latitude and Longitude data to the NMEA Output.
- ③ Click the Start button to start sending data to the serial port.



#### ➤ Select the displayed items in Google™ Earth

- ① Open the KML Output File that has been set up in 3-1-2 General Configuration.
- ② Google™ Earth will be opened.
- ③ Select the desired subjects to be displayed by clicking the ☒ mark in the box left of the file name or place mark name.

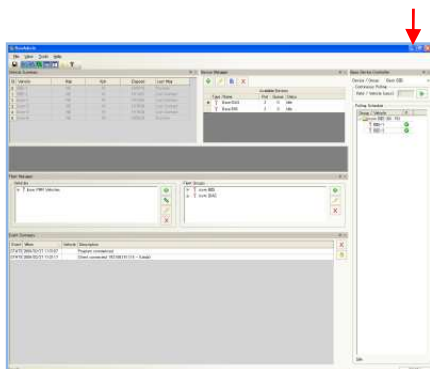
If an undesired box has the ☒ mark, then click it to remove the mark.



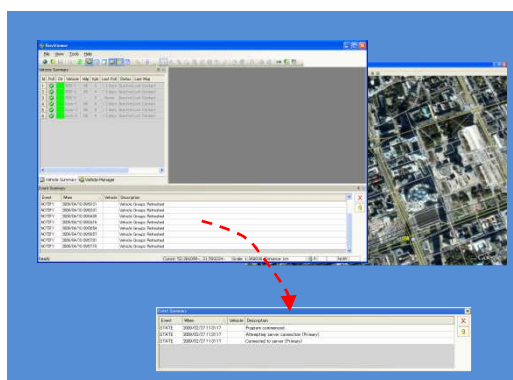
## 4 GPS Demonstration

### 4-1-2 Display Windows Setting

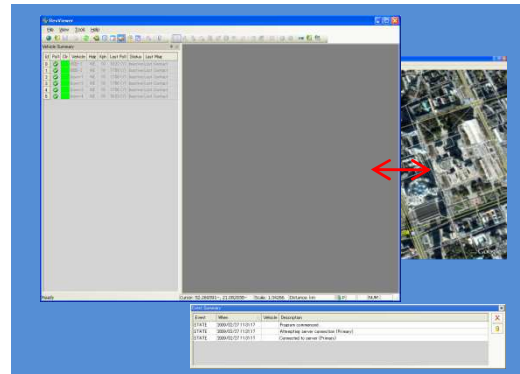
- Open REVELOC application software
  - ① Click the  icon to start RevAdmin.
  - ② Click the  icon to start RevViewer.
- Minimize the size of RevAdmin
  - ① Click the  Minimize button to minimize the RevAdmin window.



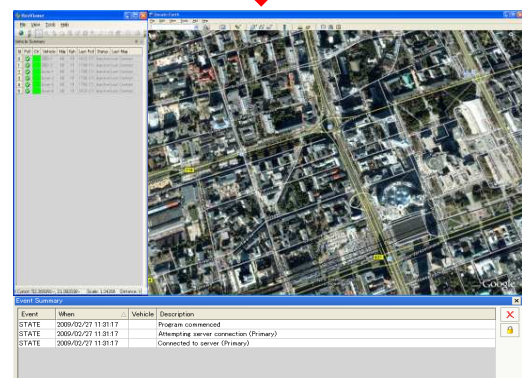
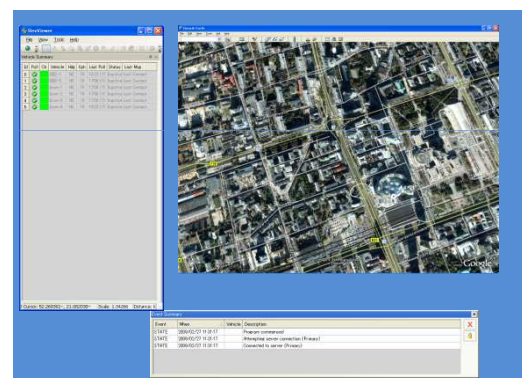
- Arrange windows of RevViewer
  - ① Click the  Resize button to make smaller of the RevViewer window.
  - ② Click and drag the title bar of Event Summary in RevViewer to out side of Reviewer window



- ③ Close all windows in the RevViewer except Vehicle Summary window.
- ④ Click the right end of RevViewer window frame to adjust the size.



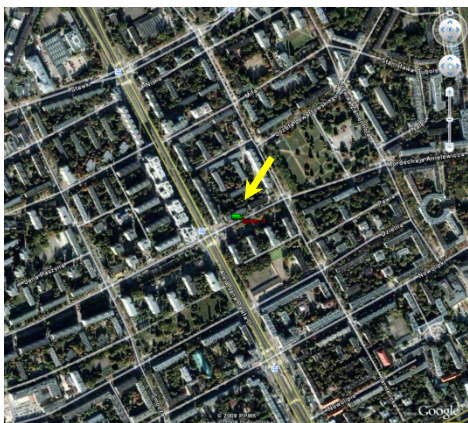
- ⑤ Adjust the size and location of RevViewer, Event Summary, and Google™ Earth.



## 4 GPS Demonstration

### 4-1-3 Send GPS data from Radio 1 (Icom-1)

- ① Push PTT button on the Radio 1 or PTT button on HM-170GP.
- ② Display the location of Radio 1 (Icom-1) in Google™ Earth.



- ③ Repeat step ② then the display of the location of the radio on Google™ Earth will be updated automatically.

### 4-1-4 Send GPS data from Radio 2 (Icom-2)

- ① Push PTT button on the hand microphone that is connected to Radio 2 (Icom-2).
- ② Location data of Radio 2 (Icom-2) will be added to Google™ Earth.

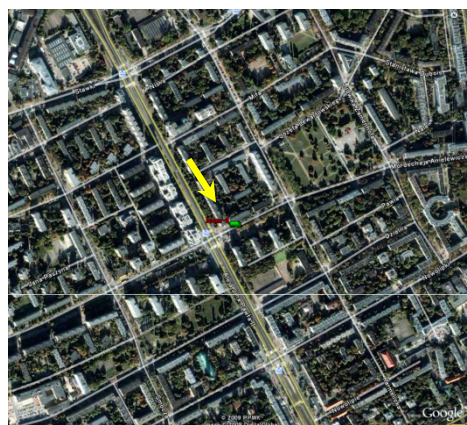


- ④ Repeat step ② then the display of the location of the radio on Google™ Earth will be updated automatically.

### 4-1-5 Automatic GPS data transmission from Radio 1 (Icom-3)

**NOTE :** When you demonstrate the automatic GPS data transmission feature then Radio 1 should be configured with the icf file "IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf".

- ① Rotate [ROTARY SELECTOR] to select the memory channel CH1
- ② Push PTT button on the Radio 1 or PTT button on HM-170GP.
- ③ Display the location of Radio 1 (Icom-3) in the map.



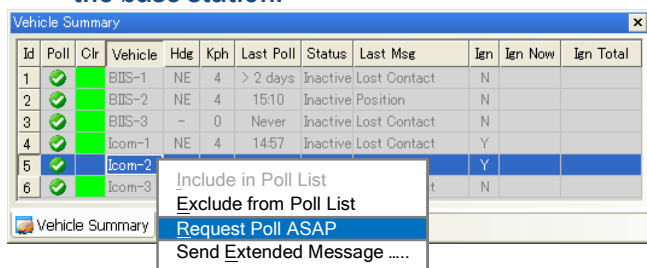
- ④ After first GPS data transmitted manually* then Radio 1 (Icom-3) automatically transmits a GPS data based on the preset interval time by the cloning software. The display will be updated automatically.

*Manual action is not required in actual operation because GPS data will be transmitted when reached to preset time, then repeat automatically.

## 4 GPS Demonstration

### 4-1-6 Request a GPS data from RevViewer to Icom-2 (Radio 2)

- ① Select Icom-2 in the **Vehicle Summary** window in the RevViewer.
- ② Click the right button to see drop menu, then select **"Request Poll ASAP"**.
- ③ The base station will transmit **"GPS Request"** status to Icom-2 (Radio 2).
- ④ Radio 2 (Icom-2) will transmit GPS data to the base station.

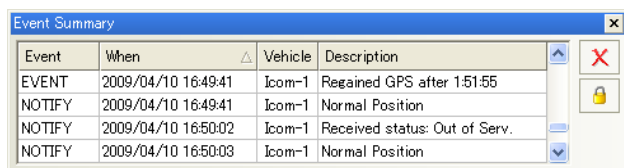


Id	Poll	Clr	Vehicle	Hde	Kph	Last Poll	Status	Last Msg	Ign	Ign Now	Ign Total
1	✓	■	BIS-1	NE	4	> 2 days	Inactive	Last Contact	N		
2	✓	■	BIS-2	NE	4	15:10	Inactive	Position	N		
3	✓	■	BIS-3	-	0	Never	Inactive	Last Contact	N		
4	✓	■	Icom-1	NE	4	14:57	Inactive	Last Contact	Y		
5	✓	■	Icom-2						Y		
6	✓	■	Icom-3						N		

### 4-1-7 Send a Status message with GPS data from Radio 1 (Icom-1)

#### ➤ Select a desired Status message

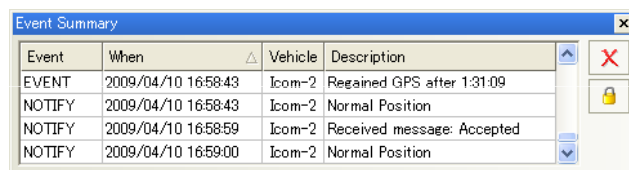
- ① Push [P0] Digital Button  
→ "VOICE" appears
- ② Push [Side 2] CH Up or [Side 3] CH Down  
→ Select **"STATUS"** mode
- ③ Push [P0] Digital Button  
→ Enter the Status selection mode
- ④ Push [Side 2] CH Up or [Side 3] CH Down  
→ Select the desired pre-programmed status message
- ⑤ Push PTT button on the Radio 1 or PTT button on HM-170GP.
- ⑥ Location data of Radio 1 (Icom-1) will be updated in the Google™ Earth.
- ⑦ The message will be displayed in the **Event Summary** window in the RevViewer.



Event	When	Vehicle	Description
EVENT	2009/04/10 16:49:41	Icom-1	Regained GPS after 1:51:55
NOTIFY	2009/04/10 16:49:41	Icom-1	Normal Position
NOTIFY	2009/04/10 16:50:02	Icom-1	Received status: Out of Serv.
NOTIFY	2009/04/10 16:50:03	Icom-1	Normal Position

### 4-1-8 Send a message with GPS data from Radio 2 (Icom-2)

- ① Push [P0] Digital Button  
→ "VOICE" appears
- ② Push [Λ] CH Up or [V] CH Down  
→ Select **"MSG"** mode
- ③ Push [P0] Digital Button  
→ Enter the message selection mode
- ④ Push [Λ] CH Up or [V] CH Down  
→ Select the desired pre-programmed message
- ⑤ Press PTT button on the hand microphone that is connected to Radio 2.
- ⑥ Location data of Radio 2 (Icom-2) will be updated in the Google™ Earth.
- ⑦ The message will be displayed in the **Event Summary** window in the RevViewer.



Event	When	Vehicle	Description
EVENT	2009/04/10 16:58:43	Icom-2	Regained GPS after 1:31:09
NOTIFY	2009/04/10 16:58:43	Icom-2	Normal Position
NOTIFY	2009/04/10 16:58:59	Icom-2	Received message: Accepted
NOTIFY	2009/04/10 16:59:00	Icom-2	Normal Position

## 4 GPS Demonstration

### 4-1-9 Display Status and Message in the RevViewer

- ① Message will appear when received status/message from the radio in the Event Summary window in the RevViewer as below.

Event Summary			
Event	When	Vehicle	Description
NOTIFY	2009/04/10 17:03:33	Icom-2	Normal Position
NOTIFY	2009/04/10 17:03:36	Icom-2	Received status: IGNITION OFF
NOTIFY	2009/04/10 17:03:45	Icom-2	Received status: IGNITION ON
NOTIFY	2009/04/10 17:03:49	Icom-2	Received status: In Service
NOTIFY	2009/04/10 17:03:50	Icom-2	Normal Position
NOTIFY	2009/04/10 17:04:07	Icom-2	Received message: Noted
NOTIFY	2009/04/10 17:04:08	Icom-2	Normal Position

#### Explanation of display example above.

“Received message: IGNITION ON” appears when receiving a “Power ON” status message from Radio 1 (Icom-1),

“Normal Position” appears when receiving a GPS data with the above status message.

“Received message: In Service” appears when receiving a “In Service” status message from Icom-1 radio,

“Normal Position” appears when receiving a GPS data with the above status message.

“Received message: On the way” appears when receiving a “On the way” message from Icom-1 radio,

“Normal Position” appears when receiving a GPS data with the above status message.

“Received message: “IGNITION OFF” appears when receiving a “Power OFF” status message from Radio 1 (Icom-1).

### 4-1-10 Send a message from the RevViewer

- ① Select Icom-1 (Radio 1) in the Vehicle Summary window in the RevViewer.
- ② Click the right button to see action menu, then select “Send Extended Message ....”.

Vehicle Summary										
Id	Poll	Clr	Vehicle	Hdg	Kph	Last Poll	Status	Last Msg	Ign	Ign Now
1	✓	■	BOS-1	NE	4	> 2 days	Inactive	Last Contact	N	
2	✓	■	BOS-2	NE	4	15:10	Inactive	Position	N	
3	✓	■	BOS-3	-	0	Never	Inactive	Last Contact	N	
4	✓	■	Icom-1	NE	10	16:50	Inactive	Position	Y	
5	✓	■	Icom-2						N	
6	✓	■	Icom-3						N	

Include in Poll List  
Exclude from Poll List  
Request Poll ASAP  
Send Extended Message ....

### ③ The Short Message window appears

**Short Message**

Preddefined Messages

- Call to Base
- Go to TAXI post A
- Go to TAXI post B
- Go to TAXI post C
- Return to base ASAP

Message: Valid characters are as per mobile phone

Return to base ASAP

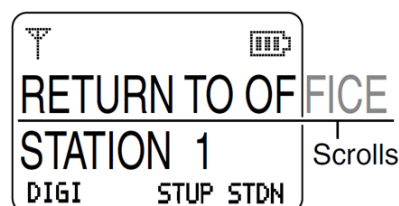
81 characters left

Send Cancel

- Send a message from “Preddefined Message”
  - ④ Select a message from the “Preddefined Message”.
  - ⑤ The selected message will be appear in the Message box.
  - ⑥ Click  Send button to transmit the message to Icom-1 (Radio 1).
- Write and send a message
  - ⑦ Write a message in the message box.
  - ⑧ Click  Send button to transmit the message to Icom-1 (Radio 1).

**NOTE:** When the received message includes more than 12 characters, the message scrolls automatically, when the automatic scroll function is activated.

- Push **[Status Up]/[Status Down]** to scroll the message manually.



## 4 GPS Demonstration

### 4-1-11 Emergency Alert in the RevViewer

- ① Push and hold [Emer] Emergency button on Radio 1 (Icom-1)
- ② After the set time period by the cloning software, the emergency signal is automatically transmitted.

**NOTE :** The number of repeat cycles of the emergency call transmission has been set as 3 times in the supplied icf file for this demonstration.

- ③ When RevViewer received an emergency signal, the following alert will be appeared.
- ✓ Display the status in red in the Event Summary window.

Event Summary				
Event	When	Vehicle	Description	
NOTIFY	2009/04/20 09:51:42	Icom-1	Normal Position	
ATTN	2009/04/20 09:51:57	Icom-1	Received SOS alert!	
REQUEST	2009/04/20 09:52:00	Icom-1	Sent SOS Acknowledge to server	
ATTN	2009/04/20 09:52:08	Icom-1	Received SOS alert!	
NOTIFY	2009/04/20 09:52:08	Icom-1	Normal Position	
ATTN	2009/04/20 09:52:19	Icom-1	Received SOS alert!	
NOTIFY	2009/04/20 09:52:19	Icom-1	Normal Position	

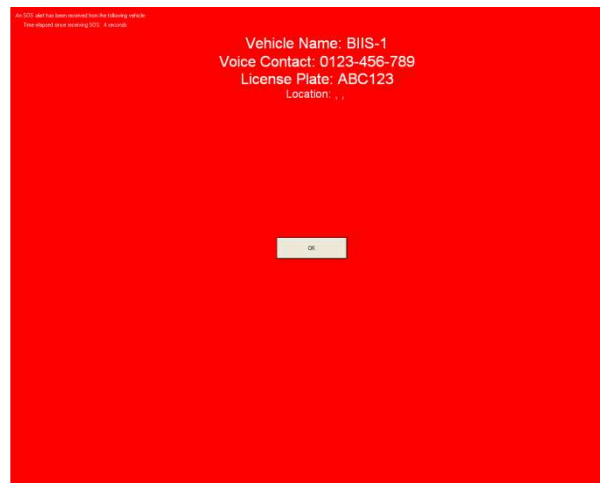
- ✓ The vehicle information in the Vehicle Summary will be highlighted in red.

Vehicle Summary											
Id	Poll	Clr	Vehicle	Hdg	Kph	Last Poll	Status	Last Msg	Ign	Ign Now	Ign Total
1	✓	✓	BIS-1	NE	4	> 2 days	Inactive Lost Contact		N		
2	✓	✓	BIS-2	NE	4	15:10	Inactive Position		N		
3	✓	✓	BIS-3	-	0	Never	Inactive Lost Contact		N		
4	✓	✓	Icom-1	NE	10	16:50	Inactive Position		Y		
5	✓	✓	Icom-2	NE	10	17:22	Inactive Position		N		
6	✓	✓	Icom-3	NE	4	> 2 days	Inactive Lost Contact		N		

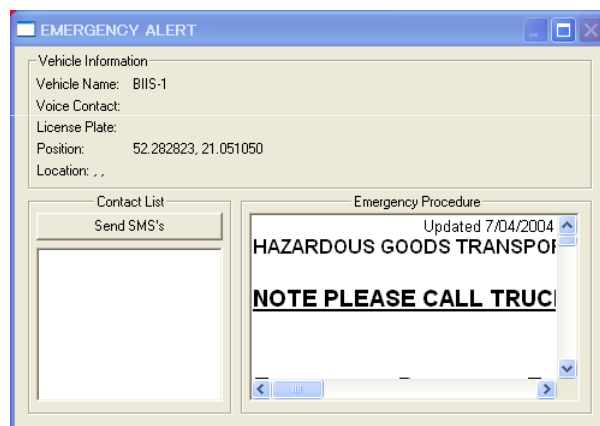
Vehicle Summary Vehicle Manager

- ✓ The alarm sound will be alerted from the PC.

- ✓ The full screen alert will be appeared, and ask for acknowledgement.



- ④ Click OK button.
- ⑤ Emergency Alert window will be appeared.

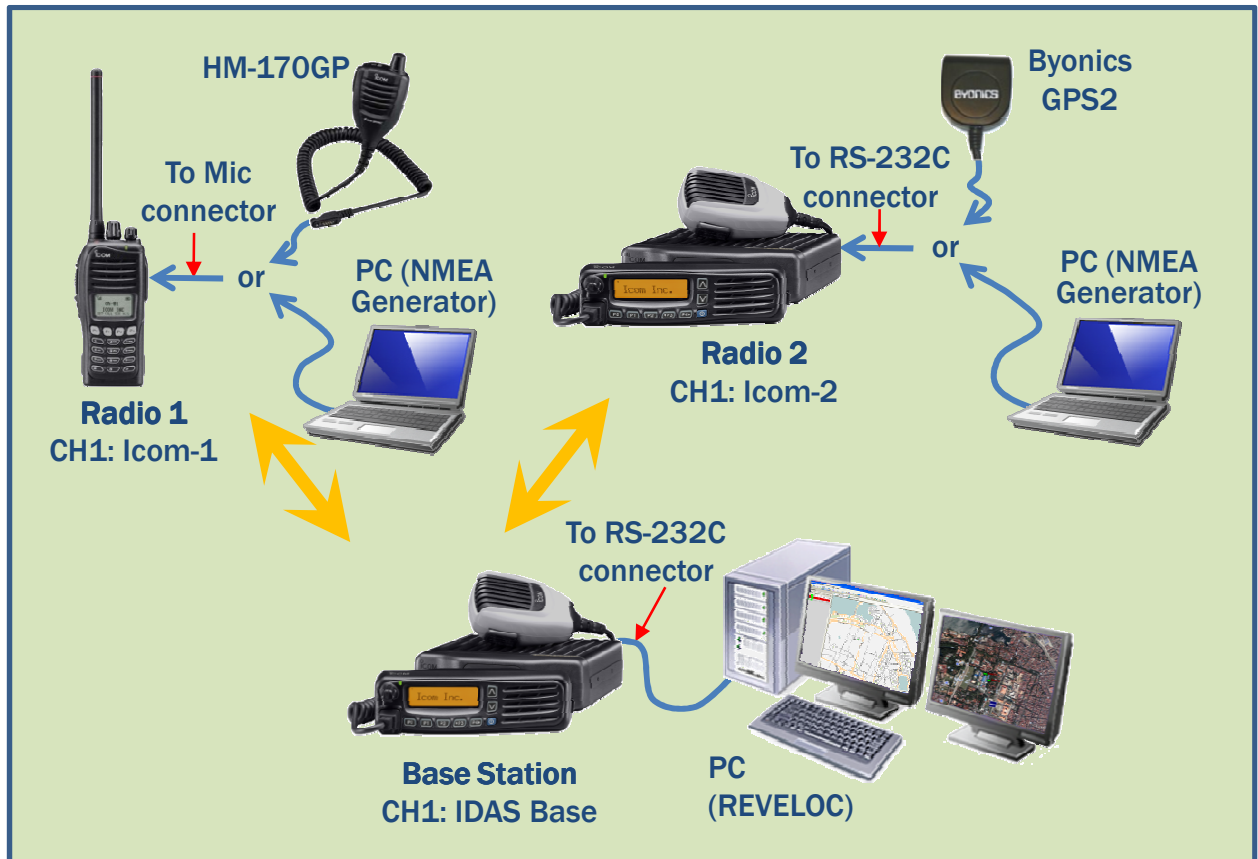


- ⑥ Take action by following the Emergency Procedure instruction .

### 4-1-12 Reset Emergency Alert

- ① Click **Clear Emergency Alert** in the pull down list under the Tools in the RevViewer.
- ② **EMERGENCY ALERT** window will be disappears
- ③ Rotate [VOL] of Radio 1 to turn the power OFF to exit Emergency mode

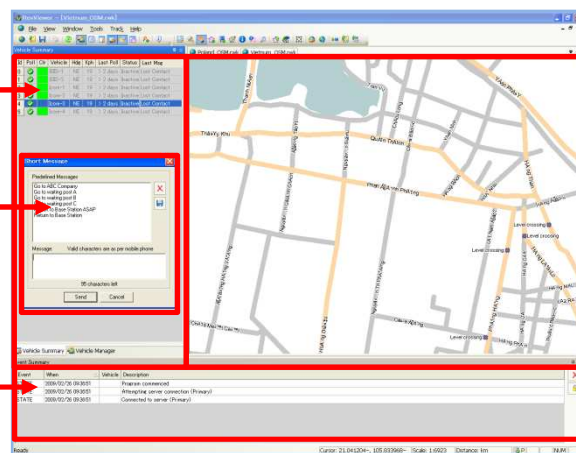
### 4-2 GPS demonstration in IDAS™ mode with Google™ Earth and RevViewer



**RevViewer**  
Vehicle Summary

**RevViewer**  
Short Message  
- Message Edit and  
Send Message

**RevViewer**  
Event Summary  
- Message Display



**Status Message and SDM Display &  
Vehicle Location View in RevViewer**

**RevViewer**  
Area Map (RWK File)



**Vehicle Location View  
in Google™ Earth**

## 4 GPS Demonstration

### 4-2-1 Preparation

#### ➤ Base Station

- ① Push and hold [①] Power Switch for 1 sec. to turn power ON.
- ② Push [Λ] CH Up or [V] CH Down to select the memory channel CH1 (IDAS Base).

#### ➤ Radio 1

- ① Rotate [VOL] to turn power ON.
- ② Rotate [ROTARY SELECTOR] to select the memory channel CH1 (Icom-1).
- ③ Radio 1 (Icom-1) will transmit "Power ON" status message to the base station automatically.

#### ➤ Radio 2

- ① Push and hold [①] Power Switch for 1 sec. to turn power ON.
- ② Push [Λ] CH Up or [V] CH Down to select the memory channel CH1 (Icom-2).
- ③ Radio 2 (Icom-2) will transmit "Power ON" status message to the base station automatically.

#### ➤ Open REVELOC application software

- ① Click the  icon to start RevAdmin.
- ② Click the  icon to start RevViewer.

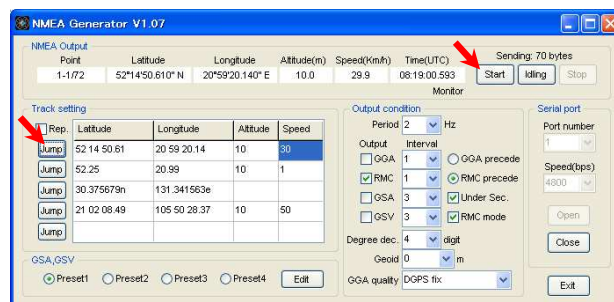
**NOTE :** The RevAdmin should be started before the RevViewer start.

**NOTE :** When change setup in RevAdmin then you may necessary to click  Refresh button in the RevViewer to refresh the Job Summary and Vehicle position information before start RevViewer properly.

**NOTE :** When conduct a demonstration with NMEA generator then proceed to open NMEA generator software.

#### ➤ Open NMEA generator software

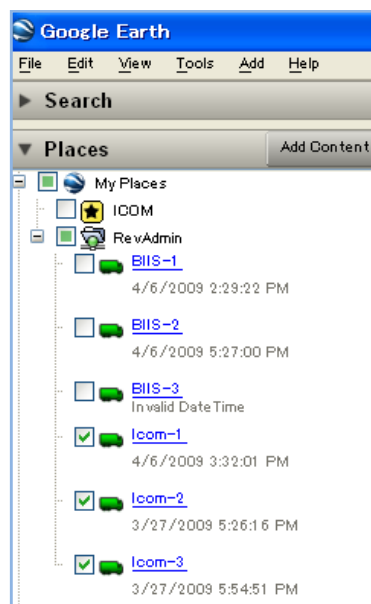
- ① Click the  icon to start NMEA generator .
- ② Click the Jump button to transfer Latitude and Longitude data to the NMEA Output.
- ③ Click the Start button to start sending data to the serial port.



#### ➤ Select the displayed items in Google™ Earth

- ① Open the KML Output File that has been set up in 3-1-2 General Configuration.
- ② Google™ Earth will be opened.
- ③ Select the desired subjects to be displayed by clicking the ☒ mark in the box left of the file name or place mark name.

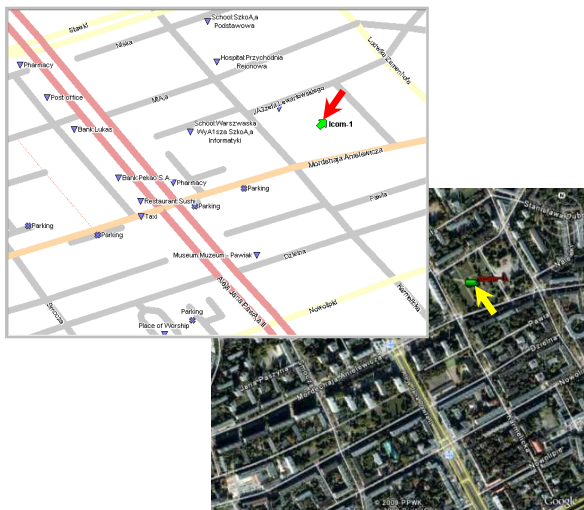
If an undesired box has the ☒ mark, then click it to remove the mark.



## 4 GPS Demonstration

### 4-2-2 Send GPS data from Radio 1 (Icom-1)

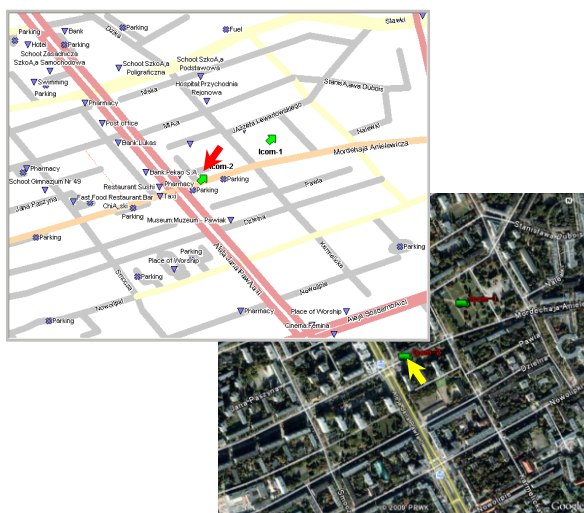
- ① Push PTT button on the Radio 1 or PTT button on HM-170GP.
- ② Location data of Radio 1 (Icom-1) will be added to the map in the RevViewer and Google™ Earth.



- ③ Repeat step ① then the display of the location of the radio on the RevViewer and Google™ Earth will be updated automatically.

### 4-2-3 Send GPS data from Radio 2 (Icom-2)

- ① Push PTT button on the hand microphone that is connected to Radio 2 (Icom-2).
- ② Location data of Radio 2 (Icom-2) will be added to the map in the RevViewer and Google™ Earth.



- ③ Repeat step ① then the display of the location of Radio 2 (Icom-2) on the RevViewer and Google™ Earth will be updated automatically.

### 4-2-4 Automatic GPS data transmission from Radio 1 (Icom-3)

**NOTE:** When you demonstrate the automatic GPS data transmission feature then Radio 1 should be configured with the icf file "IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf".

- ① Rotate [ROTARY SELECTOR] to select the memory channel CH1
- ② Push PTT button on the Radio 1 or PTT button on HM-170GP.
- ③ Location data of Radio 1 (Icom-3) will be added to the map in the RevViewer and Google™ Earth.



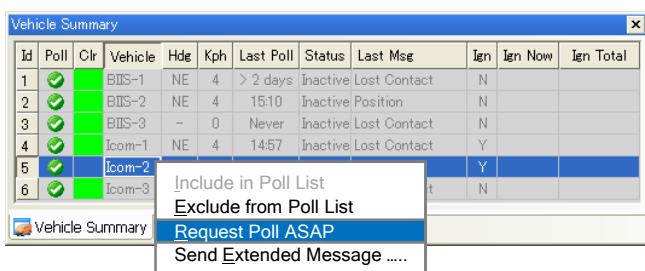
- ④ After first GPS data transmitted manually* then Radio 1 (Icom-3) automatically transmits a GPS data based on the preset interval time by the cloning software. The display will be updated automatically.

*Manual action is not required in actual operation because GPS data will be transmitted when reached to preset time, then repeat automatically.

## 4 GPS Demonstration

### 4-2-5 Request a GPS data from RevViewer to Icom-2 (Radio 2)

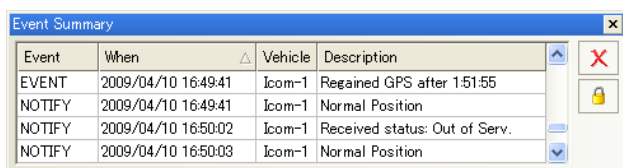
- ① Select Icom-2 in the **Vehicle Summary** window in the RevViewer.
- ② Click the right button to see drop menu, then select **"Request Poll ASAP"**.
- ③ The base station will transmit **"GPS Request"** status to Icom-2 (Radio 2).
- ④ Radio 2 (Icom-2) will transmit GPS data to the base station.



### 4-2-6 Send a Status message with GPS data from Radio 1 (Icom-1)

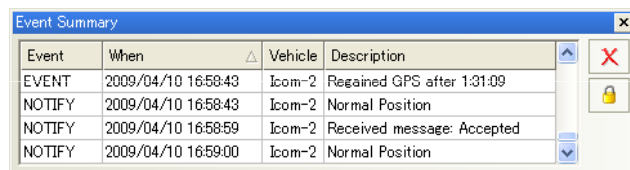
#### ➤ Select a desired Status message

- ① Push **[P0]** Digital Button  
→ "VOICE" appears
- ② Push **[Side 2]** CH Up or **[Side 3]** CH Down  
→ Select **"STATUS"** mode
- ③ Push **[P0]** Digital Button  
→ Enter the Status selection mode
- ④ Push **[Side 2]** CH Up or **[Side 3]** CH Down  
→ Select the desired pre-programmed status message
- ⑤ Push PTT button on the Radio 1 or PTT button on HM-170GP.
- ⑥ Location data of Radio 1 (Icom-1) will be updated in the RevViewer and Google™ Earth.
- ⑦ The message will be displayed in the **Event Summary** window in the RevViewer.



### 4-2-7 Send a SDM with GPS data from Radio 2 (Icom-2)

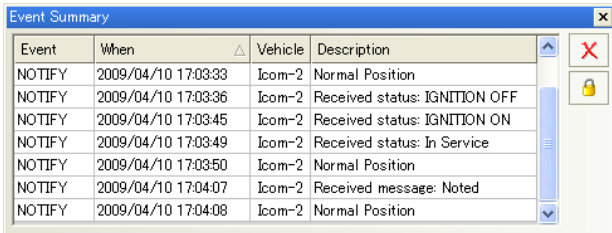
- ① Push **[P0]** Digital Button  
→ "VOICE" appears
- ② Push **[^]** CH Up or **[V]** CH Down  
→ Select **"SDM"** mode
- ③ Push **[P0]** Digital Button  
→ Enter the message selection mode
- ④ Push **[^]** CH Up or **[V]** CH Down  
→ Select the desired pre-programmed SDM
- ⑤ Press PTT button on the hand microphone that is connected to Radio 2.
- ⑥ Location data of Radio 2 (Icom-2) will be updated in the RevViewer and Google™ Earth.
- ⑦ The message will be displayed in the **Event Summary** window in the RevViewer.



## 4 GPS Demonstration

### 4-2-8 Display Status and Message in the RevViewer

- ① Message will appear when received status/message from the radio in the Event Summary window in the RevViewer as below.



Event	When	Vehicle	Description
NOTIFY	2009/04/10 17:03:33	Icom-2	Normal Position
NOTIFY	2009/04/10 17:03:36	Icom-2	Received status: IGNITION OFF
NOTIFY	2009/04/10 17:03:45	Icom-2	Received status: IGNITION ON
NOTIFY	2009/04/10 17:03:49	Icom-2	Received status: In Service
NOTIFY	2009/04/10 17:03:50	Icom-2	Normal Position
NOTIFY	2009/04/10 17:04:07	Icom-2	Received message: Noted
NOTIFY	2009/04/10 17:04:08	Icom-2	Normal Position

#### Explanation of display example above.

“Received message: IGNITION ON” appears when receiving a “Power ON” status message from Radio 1 (Icom-1),

“Normal Position” appears when receiving a GPS data with the above status message.

“Received message: In Service” appears when receiving a “In Service” status message from Icom-1 radio,

“Normal Position” appears when receiving a GPS data with the above status message.

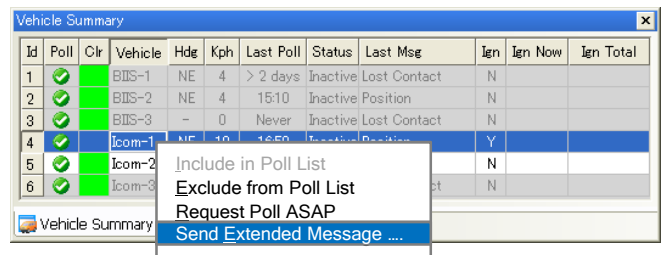
“Received message: On the way” appears when receiving a “On the way” message from Icom-1 radio,

“Normal Position” appears when receiving a GPS data with the above status message.

“Received message: “IGNITION OFF” appears when receiving a “Power OFF” status message from Radio 1 (Icom-1).

### 4-2-9 Send a message from the RevViewer

- ① Select Icom-1 (Radio 1) in the Vehicle Summary window in the RevViewer.
- ② Click the right button to see action menu, then select “Send Extended Message ....”.



### ③ The Short Message window appears

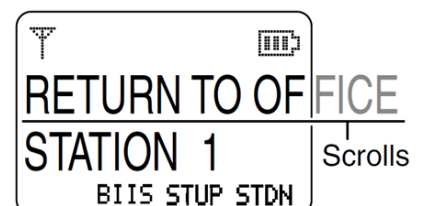


- Send a message from “Predefined Message”

- ④ Select a message from the “Predefined Message”.
  - ⑤ The selected message will be appear in the Message box.
  - ⑥ Click  Send button to transmit the message to Icom-1 (Radio 1).
- Write and send a message
  - ⑦ Write a message in the message box.
  - ⑧ Click  Send button to transmit the message to Icom-1 (Radio 1).

**NOTE:** When the received message includes more than 12 characters, the message scrolls automatically, when the automatic scroll function is activated.

- Push [Status Up]/[Status Down] to scroll the message manually.



## 4 GPS Demonstration

### 4-2-10 Emergency Alert in the RevViewer

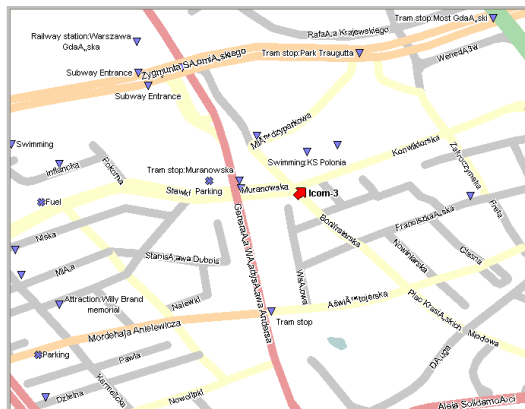
- 1 Push and hold [Emer] Emergency button on Radio 1 (Icom-1)
- 2 After the set time period by the cloning software, the emergency signal is automatically transmitted.

**NOTE :** The number of repeat cycles of the emergency call transmission has been set as 3 times in the supplied icf file for this demonstration.

- 3 When RevViewer received an emergency signal, the following alert will be appeared.
- ✓ Display the status in red in the Event Summary window.

Event Summary				
Event	When	Vehicle	Description	
NOTIFY	2009/04/20 09:51:42	Icom-1	Normal Position	
ATTN	2009/04/20 09:51:57	Icom-1	Received SOS alert!	
REQUEST	2009/04/20 09:52:00	Icom-1	Sent SOS Acknowledge to server	
ATTN	2009/04/20 09:52:08	Icom-1	Received SOS alert!	
NOTIFY	2009/04/20 09:52:08	Icom-1	Normal Position	
ATTN	2009/04/20 09:52:19	Icom-1	Received SOS alert!	
NOTIFY	2009/04/20 09:52:19	Icom-1	Normal Position	

- ✓ The color of the vehicle will change to red.



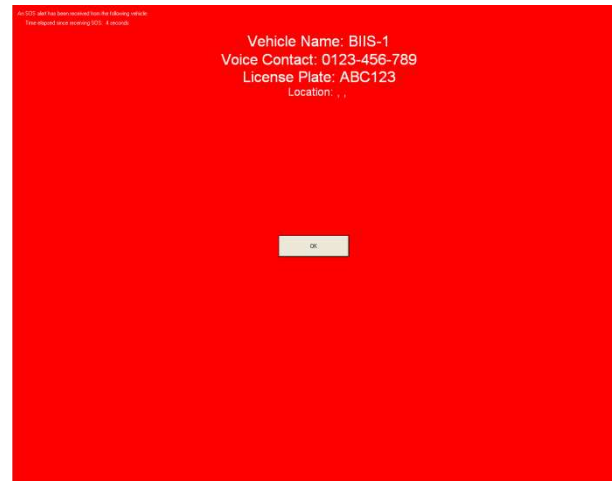
- ✓ The vehicle information in the Vehicle Summary will be highlighted in red.

Vehicle Summary										
Id	Poll	Clr	Vehicle	Hdg	Kph	Last Poll	Status	Last Msg	Ign	Ign Now
4	✓	✓	Icom-1	NE	48	> 2 days	Inactive	Lost Contact	N	
5	✓	✓	Icom-2	NE	48	> 2 days	Inactive	Lost Contact	N	
6	✓	✓	Icom-3	NE	49	14:25	Inactive	Position	N	

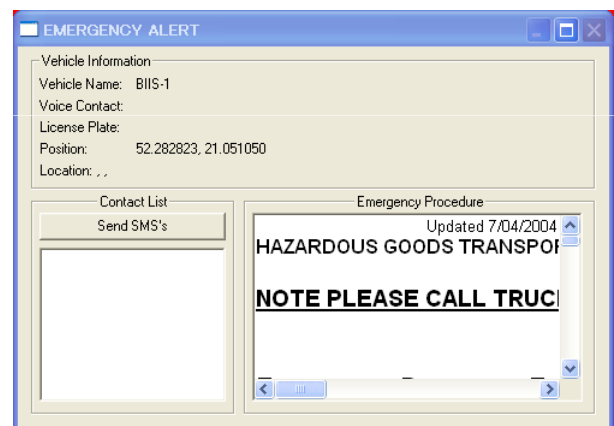
Vehicle Summary Vehicle Manager

- ✓ The alarm sound will be alerted from the PC.

- ✓ The full screen alert will be appeared, and ask for acknowledgement.



- 4 Click OK button.
- 5 Emergency Alert window will be appeared.

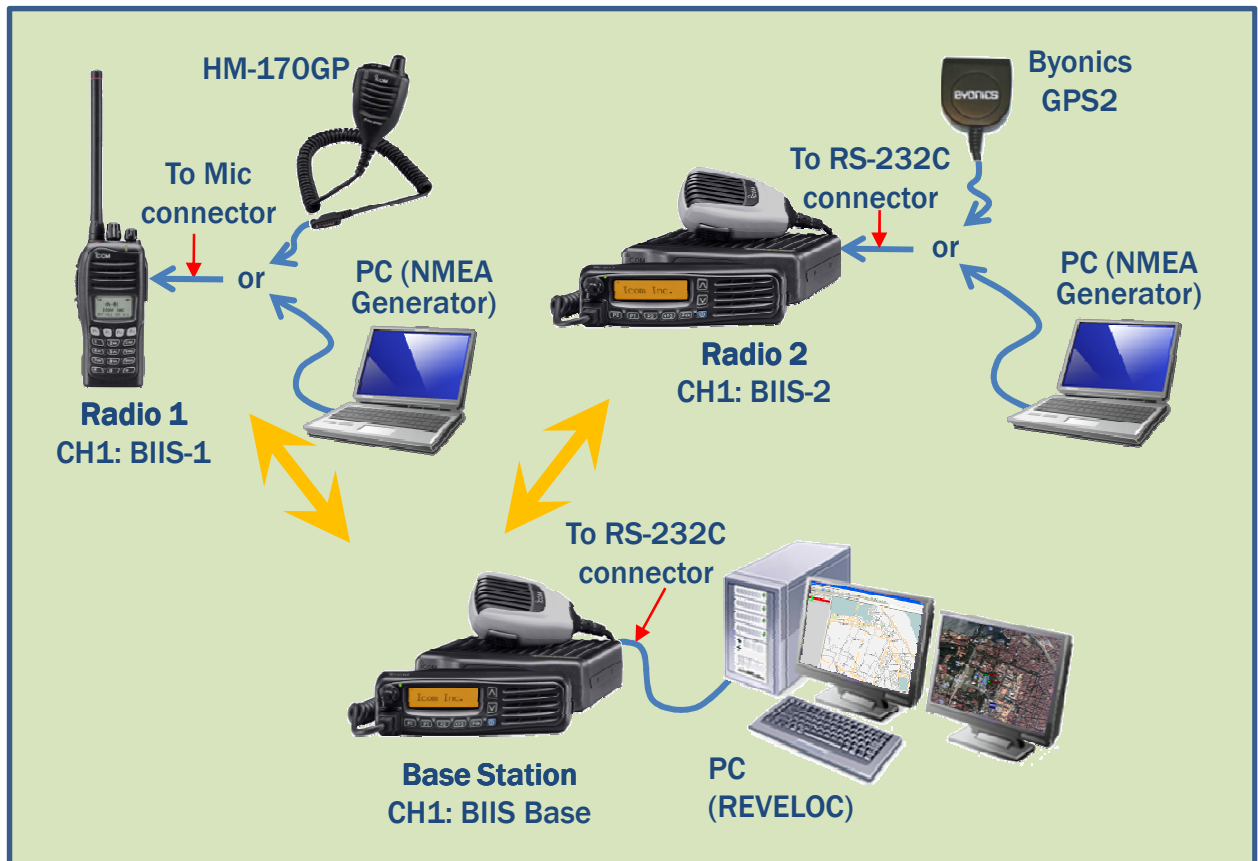


- 6 Take action by following the Emergency Procedure instruction .

### 4-2-11 Reset Emergency Alert

- 1 Click **Clear Emergency Alert** in the pull down list under the Tools in the RevViewer.
- 2 **EMERGENCY ALERT** window will be disappears
- 3 Rotate [VOL] of Radio 1 to turn the power OFF to exit Emergency mode

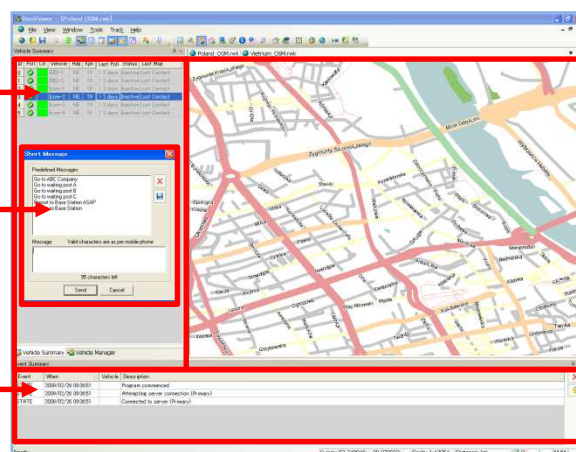
### 4-3 GPS demonstration in BIIS mode



**RevViewer**  
Vehicle Summary

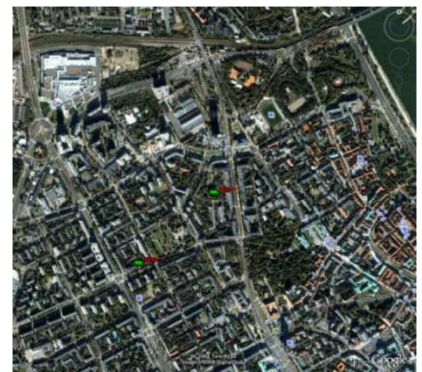
**RevViewer**  
Short Message  
- Message Edit and  
Send Message

**RevViewer**  
Event Summary  
- Message Display



Status Message and SDM Display &  
Vehicle Location View in **RevViewer**

**RevViewer**  
Area Map (RWK File)



Vehicle Location View  
in **Google™ Earth**

## 4 GPS Demonstration

### 4-3-1 Preparation

#### ➤ Base Station

- ① Push and hold [①] Power Switch for 1 sec. to turn power ON.
- ② Push [Λ] CH Up or [V] CH Down to select the memory channel CH1 (BIIS Base).

#### ➤ Radio 1

- ① Rotate [VOL] to turn power ON.
- ② Rotate [ROTARY SELECTOR] to select the memory channel CH1 (BIIS-1).
- ③ Radio 1 (BIIS-1) will transmit "Power ON" status message to the base station automatically.

#### ➤ Radio 2

- ① Push and hold [①] Power Switch for 1 sec. to turn power ON.
- ② Push [Λ] CH Up or [V] CH Down to select the memory channel CH1 (BIIS-2).
- ③ Radio 2 will transmit "Power ON" status message to the base station automatically.

#### ➤ Open REVELOC application software

- ① Click the  icon to start RevAdmin.
- ② Click the  icon to start RevViewer.

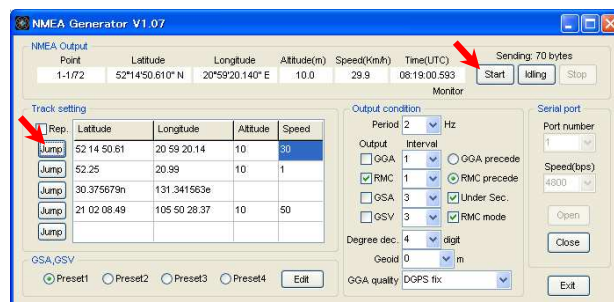
**NOTE :** The RevAdmin should be started before the RevViewer start.

**NOTE :** When change setup in RevAdmin then you may necessary to click  Refresh button in the RevViewer to refresh the Job Summary and Vehicle position information before start RevViewer properly.

**NOTE :** When conduct a demonstration with NMEA generator then proceed to open NMEA generator software.

#### ➤ Open NMEA generator software

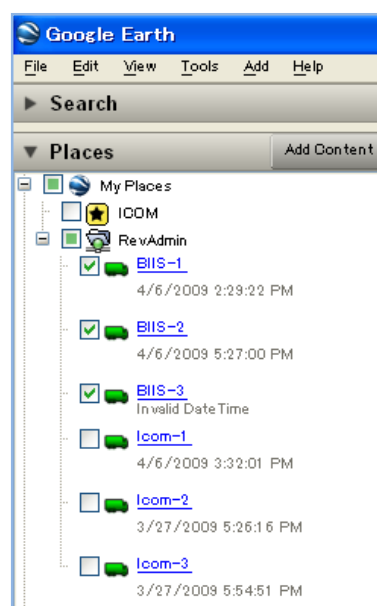
- ① Click the  icon to start NMEA generator .
- ② Click the Jump button to transfer Latitude and Longitude data to the NMEA Output.
- ③ Click the Start button to start sending data to the serial port.



#### ➤ Select the displayed items in Google™ Earth

- ① Open the KML Output File that has been set up in 3-1-2 General Configuration.
- ② Google™ Earth will be opened.
- ③ Select the desired subjects to be displayed by clicking the ☒ mark in the box left of the file name or place mark name.

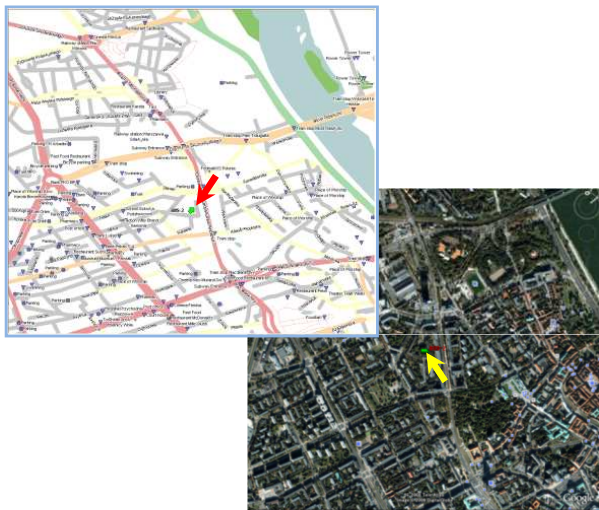
If an undesired box has the ☒ mark, then click it to remove the mark.



## 4 GPS Demonstration

### 4-3-2 Send a message with GPS data from Radio 1 (BIIS-1)

- ① Push [P2] Status Up or [P3] Status Down to select desired status or message.
- ② Push [Side 1] Call button or PTT button on the Radio 1 or PTT button on HM-170GP.
- ③ Location data of Radio 1 (BIIS-1) will be added to the map in the RevViewer and Google™ Earth.
- ④ The message will be displayed on the **Event Summary** window in the RevViewer.



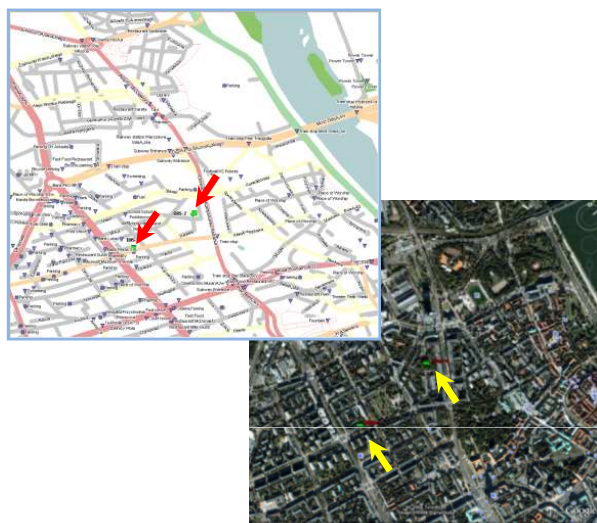
Event Summary			
Event	When	Vehicle	Description
NOTIFY	2009/01/27 12:56:58	BIIS-1	Received message: Power ON
NOTIFY	2009/01/27 12:56:59	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:05	BIIS-1	Received message: In Service
NOTIFY	2009/01/27 12:57:07	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:14	BIIS-1	Received message: On the way
NOTIFY	2009/01/27 12:57:16	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:24	BIIS-1	Received message: Power OFF

- ⑤ Repeat step ① and ② then the display of the location of the radios on the RevViewer and Google™ Earth will be updated automatically.

### 4-3-3 Automatic GPS data transmission from Radio 2 (BIIS-3)

**NOTE :** When you demonstrate the automatic GPS data transmission feature then Radio 2 should be configured with the icf file "BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf".

- ① Push [P2] Status Up or [P3] Status Down to select desired status or message.
- ② Push [P4] Call button or PTT button on the hand microphone.
- ③ Location of Radio 2 (BIIS-3) radio will be displayed on the RevViewer and Google™ Earth.
- ④ The message will be displayed in the **Event Summary** window in the RevViewer.



Event Summary			
Event	When	Vehicle	Description
NOTIFY	2009/01/27 12:56:58	BIIS-1	Received message: Power ON
NOTIFY	2009/01/27 12:56:59	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:05	BIIS-1	Received message: In Service
NOTIFY	2009/01/27 12:57:07	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:14	BIIS-1	Received message: On the way
NOTIFY	2009/01/27 12:57:16	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:24	BIIS-1	Received message: Power OFF

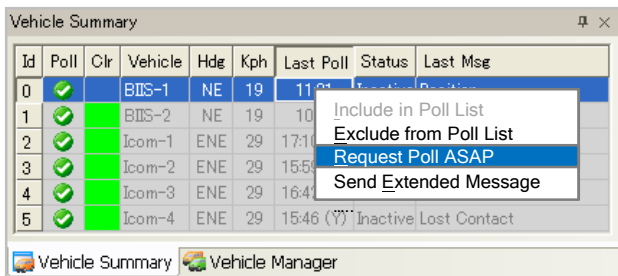
- ⑤ After first GPS data transmitted manually* then Radio 2 (BIIS-3) automatically transmits a GPS data based on the preset interval time by the cloning software. The display will be updated automatically.

*Manual action is not required in actual operation because GPS data will be transmitted when reached to preset time, then repeat automatically.

## 4 GPS Demonstration

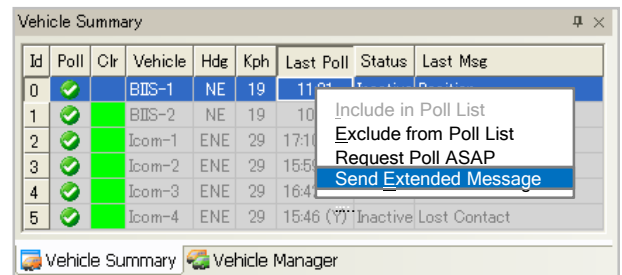
### 4-3-4 Request a GPS data from RevViewer to Radio 1 (BIIS-1)

- ① Select BIIS-1 in the **Vehicle Summary** window in the RevViewer.
- ② Click the right button to see drop menu, then select **“Request Poll ASAP”**.
- ③ The base station will transmit **“GPS Request”** status to Radio 1. (BIIS-1)
- ④ Radio 1 (BIIS-1) will transmit GPS data to the base station.

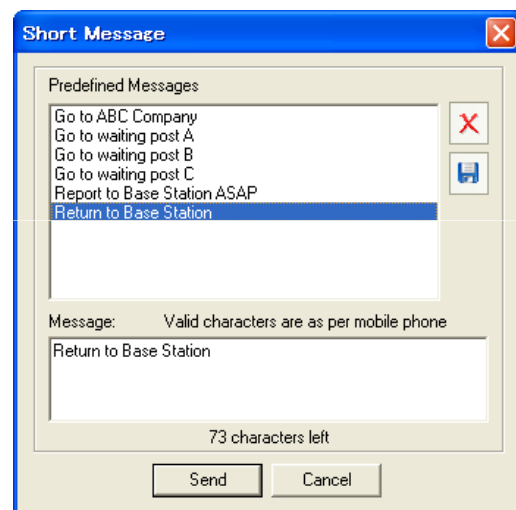


### 4-3-5 Send a message from the RevViewer

- ① Select BIIS-1 in the **Vehicle Summary** window in the RevViewer.
- ② Click the right button to see action menu, then select **“Send Extended Message ....”**.



### ③ The Short Message window appears



- Send a message from **“Predefined Message”**
  - ④ Select a message from the **“Predefined Message”**.
  - ⑤ The selected message will appear in the **Message box**.
  - ⑥ Click  **Send** button to transmit the message to BIIS-1 (Radio 1).
- Write and send a message
  - ⑦ Write a message in the message box.
  - ⑧ Click  **Send** button to transmit the message to BIIS-1 (Radio 1).

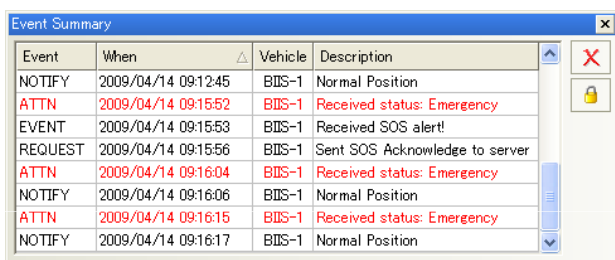
## 4 GPS Demonstration

### 4-3-6 Emergency Alert in the RevViewer

- ① Push [Emer] Emergency button on Radio 1 (BIIS-1)
- ② When [Emergency] is pushed for the specified time period, an emergency signal is automatically transmitted.

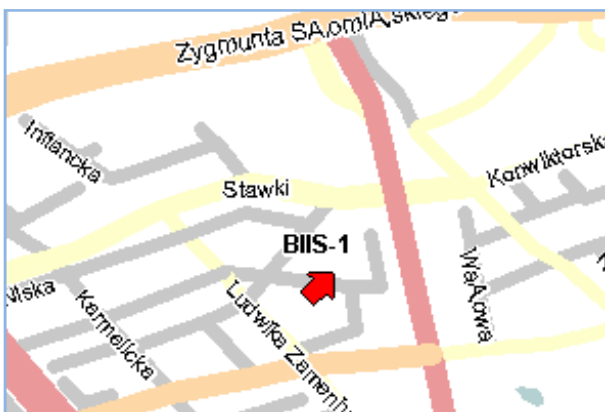
**NOTE :** The number of repeat cycles of the emergency call transmission has been set as 3 times in the supplied icf file for this demonstration.

- ③ When RevViewer received an emergency signal, the following alert will be appeared.
- ✓ Display the status in red in the Event Summary window.

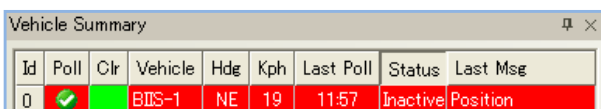


Event	When	Vehicle	Description
NOTIFY	2009/04/14 09:12:45	BIIS-1	Normal Position
ATTN	2009/04/14 09:15:52	BIIS-1	Received status: Emergency
EVENT	2009/04/14 09:15:53	BIIS-1	Received SOS alert!
REQUEST	2009/04/14 09:15:56	BIIS-1	Sent SOS Acknowledge to server
ATTN	2009/04/14 09:16:04	BIIS-1	Received status: Emergency
NOTIFY	2009/04/14 09:16:06	BIIS-1	Normal Position
ATTN	2009/04/14 09:16:15	BIIS-1	Received status: Emergency
NOTIFY	2009/04/14 09:16:17	BIIS-1	Normal Position

- ✓ The color of the vehicle will change to red.



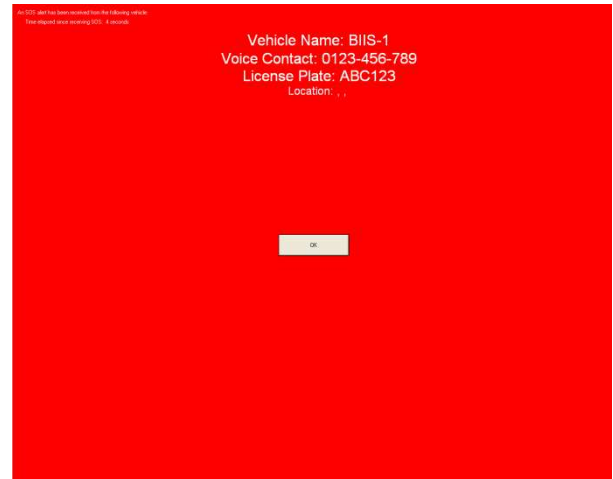
- ✓ The vehicle information in the Vehicle Summary will be highlighted in red.



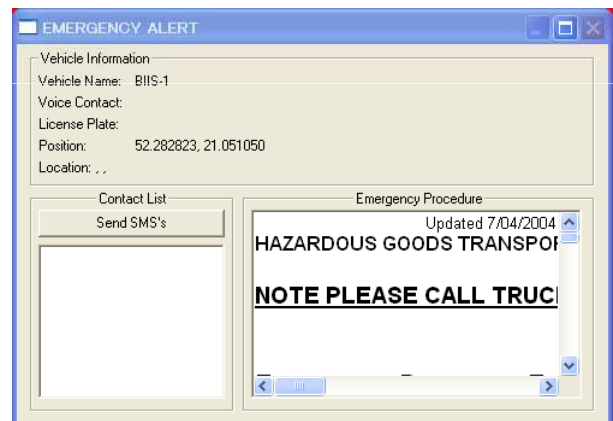
Id	Poll	Clr	Vehicle	Hdg	Kph	Last Poll	Status	Last Msg
0	✓	✓	BIIS-1	NE	19	11:57	Inactive Position	

- ✓ The alarm sound will be alerted from the PC.

- ✓ The full screen alert will be appeared, and ask for acknowledgement.



- ④ Click OK button.
- ⑤ Emergency Alert window will be appeared.

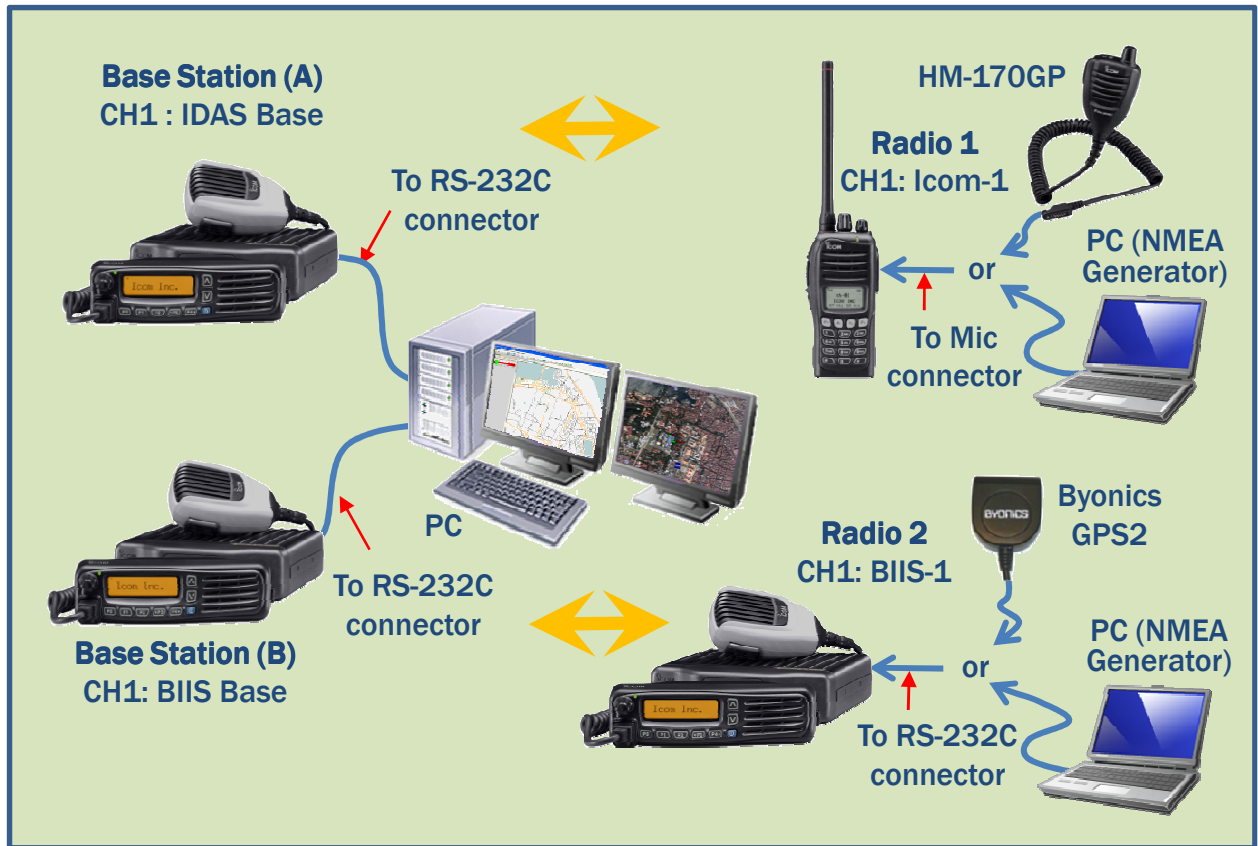


- ⑥ Take action by following the Emergency Procedure instruction .

### 4-3-7 Reset Emergency Alert

- ① Click **Clear Emergency Alert** in the pull down list under the Tools in the RevViewer.
- ② **EMERGENCY ALERT** window will be disappears
- ③ Rotate [VOL] of Radio 1 to turn the power OFF to exit Emergency mode

### 4-4 GPS demonstration in IDAS™ and BIIS Mix mode operation



**RevViewer**  
Vehicle Summary

**RevViewer**  
Short Message  
- Message Edit and  
Send Message

**RevViewer**  
Event Summary  
- Message Display

The screenshot shows the RevViewer software interface. It includes a map view at the top, a vehicle summary table on the left, and a message display area on the right. The vehicle summary table lists vehicles with columns for ID, Name, Status, and Location. The message display area shows a list of messages with columns for Time, From, and Message. The map view shows a street map with a red line indicating a vehicle's path.

**RevViewer**  
Area Map (RWK File)

Status Message and SDM Display &  
Vehicle Location View in **RevViewer**

Vehicle Location View  
in **Google™ Earth**

## 4 GPS Demonstration

### 4-4-1 Preparation

#### ➤ Base Station (A)

- ① Push and hold [ⓘ] Power Switch for 1 sec. to turn power ON.
- ② Push [^] CH Up or [v] CH Down to select the memory channel CH1 (IDAS Base).

#### ➤ Base Station (B)

- ① Push and hold [ⓘ] Power Switch for 1 sec. to turn power ON.
- ② Push [^] CH Up or [v] CH Down to select the memory channel CH1 (BIIS Base).

#### ➤ Radio 1

- ① Rotate [VOL] to turn power ON.
- ② Rotate [ROTARY SELECTOR] to select the memory channel CH1 (Icom-1).
- ③ Radio 1 (Icom-1) will transmit "Power ON" status message to the base station automatically.

#### ➤ Radio 2

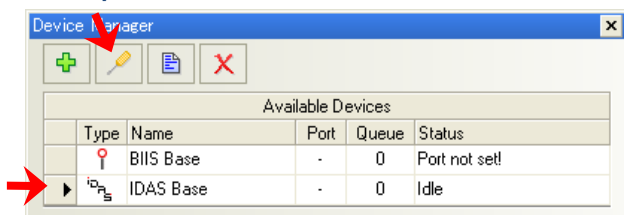
- ① Push and hold [ⓘ] Power Switch for 1 sec. to turn power ON.
- ② Push [^] CH Up or [v] CH Down to select the memory channel CH1 (BIIS-1).
- ③ Radio 2 (BIIS-1) will transmit "Power ON" status message to the base station automatically.

#### ➤ Open RevAdmin application software

- ① Click the  icon to start RevAdmin.

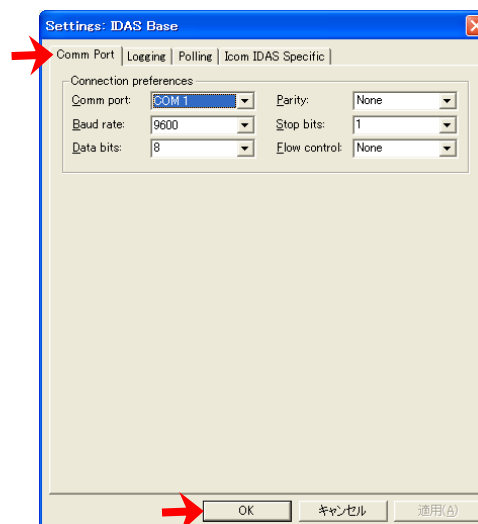
#### ➤ Configuring a Device in the RevAdmin

- ① Select an appropriate Type in the Device Manager window. e.g. Base IDAS.
- ② Click  Properties button to open Properties.

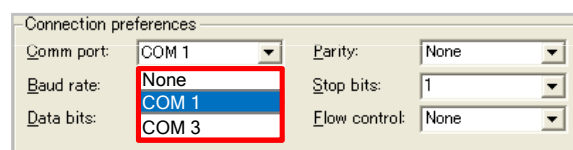


- ③ Settings: Base IDAS window appears.

- ④ Click Comm Port Tab.



- ⑤ Select the appropriate Comm port from the drop down list.

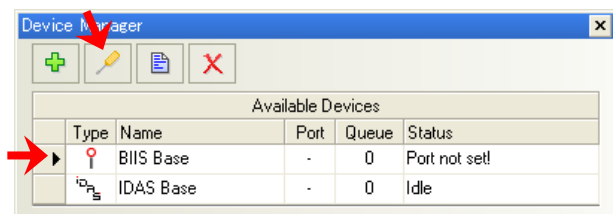


- ⑥ Click OK.

## 4 GPS Demonstration

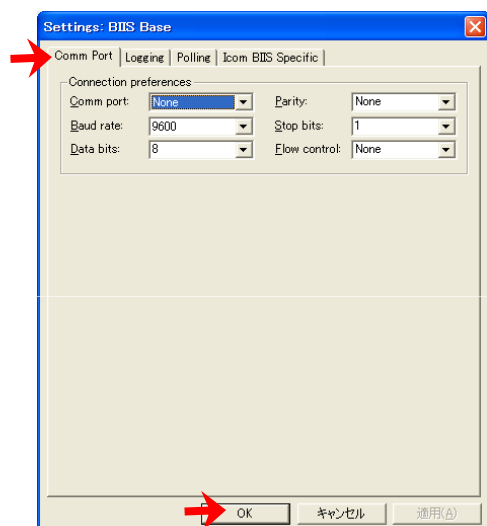
⑦ Select an appropriate Type in the Device Manager window. e.g. Base IDAS.

⑧ Click  Properties button to open Properties.



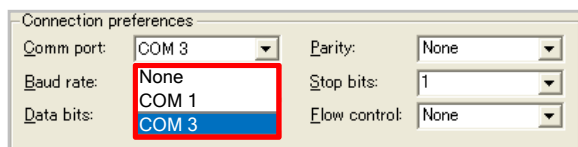
⑨ Settings: Base BIIS window appears.

⑩ Click Comm Port Tab.



⑪ Select the appropriate Comm port from the drop down list.

**NOTE :** The COM port for Base IDAS and Base BIIS should be different.



⑫ Click OK.

➤ Open RevViewer application software

① Click the  icon to start RevViewer.

**NOTE :** You may necessary to click  Refresh button to refresh the Job Summary and Vehicle position information before start RevViewer properly.

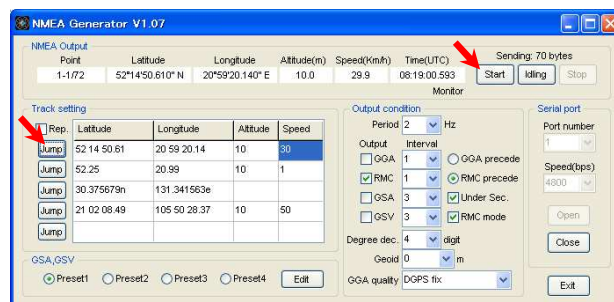
**NOTE :** When conduct a demonstration with NMEA generator then proceed to open NMEA generator software.

➤ Open NMEA generator software

① Click the  icon to start NMEA generator .

② Click the Jump button to transfer Latitude and Longitude data to the NMEA Output.

③ Click the Start button to start sending data to the serial port.



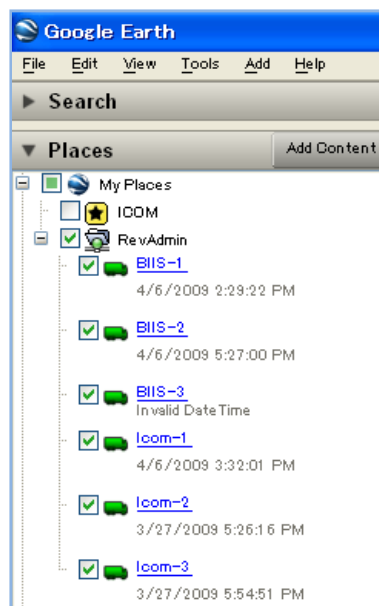
➤ Select the displayed items in Google™ Earth

① Open the KML Output File that has been set up in 3-1-2 General Configuration.

② Google™ Earth will be opened.

③ Select the desired subjects to be displayed by clicking the ☒ mark in the box left of the file name or place mark name.

If an undesired box has the ☒ mark, then click it to remove the mark.



## 4 GPS Demonstration

### 4-4-2 Send GPS data from Radio 1 (Icom-1)

- ① Push PTT button on the Radio 1 or PTT button on HM-170GP.
- ② Location data of Radio 1 (Icom-1) will be displayed on the RevViewer and “Google™ Earth”.

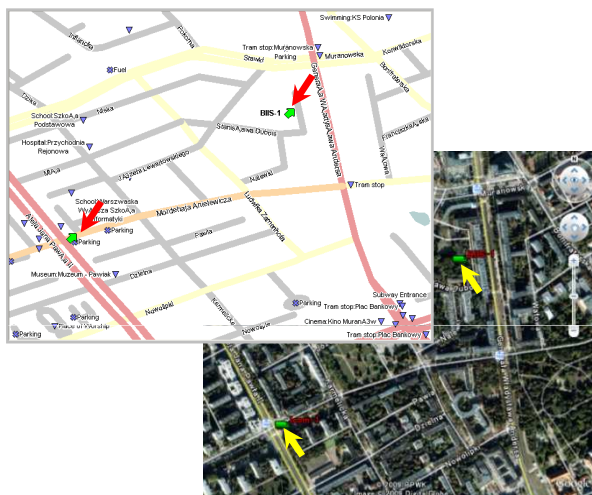


Event Summary			
Event	When	Vehicle	Description
NOTIFY	2009/04/10 17:03:33	Icom-2	Normal Position
NOTIFY	2009/04/10 17:03:36	Icom-2	Received status: IGNITION OFF
NOTIFY	2009/04/10 17:03:45	Icom-2	Received status: IGNITION ON
NOTIFY	2009/04/10 17:03:49	Icom-2	Received status: In Service
NOTIFY	2009/04/10 17:03:50	Icom-2	Normal Position
NOTIFY	2009/04/10 17:04:07	Icom-2	Received message: Noted
NOTIFY	2009/04/10 17:04:08	Icom-2	Normal Position

- ③ Repeat step ① then the display of the location of the radio on the RevViewer and Google™ Earth will be updated automatically.

### 4-4-3 Send a message with GPS data from Radio 2 (BIIS-1)

- ① Push [P2] Status Up or [P3] Status Down to select desired status or message.
- ② Push [P4] Call button or PTT button on the hand microphone.
- ③ Location data of Radio 2 (BIIS-1) will be added to the map in the RevViewer and Google™ Earth.
- ④ The message will be displayed on the Event Summary window in the RevViewer.



Event Summary			
Event	When	Vehicle	Description
NOTIFY	2009/01/27 12:56:58	BIIS-1	Received message: Power ON
NOTIFY	2009/01/27 12:56:59	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:05	BIIS-1	Received message: In Service
NOTIFY	2009/01/27 12:57:07	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:14	BIIS-1	Received message: On the way
NOTIFY	2009/01/27 12:57:16	BIIS-1	Normal Position
NOTIFY	2009/01/27 12:57:24	BIIS-1	Received message: Power OFF

- ⑤ Repeat step ① and ② then the display of the location of the radios on the RevViewer and Google™ Earth will be updated automatically.

**NOTE:** Please see 4-1-6 to 4-1-12 for detail procedures for GPS data Polling, Message, and Emergency Alert demonstration for IDAS™ mode.

**NOTE:** Please see 4-3-4 to 4-3-7 for detail procedures for GPS data Polling, Message, and Emergency Alert demonstration for BIIS mode.

## 5 Cloning Settings

The snap shots of cloning settings in this section are settings of following icf files. The figures in **RED boxes** are different from default condition. Those files have been created in PMR mode.

5-1 for Base Station in IDAS™ mode	IDAS_GPS_Demo_Base_REVELOC_Ver2_0.icf
5-2 for Filed Radio in IDAS™ mode	IDAS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf IDAS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf
5-3 for Base Station in BIIS mode	BIIS_GPS_Demo_Base_REVELOC_Ver2_0.icf
5-4 for Filed Radio in BIIS mode	BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf BIIS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf

This Quick Guide has been prepared with following software revision.

The firmware of IDAS™ radios : **Revision 2.7**

The cloning software : **CS-F3160/F5060 Revision 2.5**

### 5-1 Cloning settings for IDAS™ Base Station

#### 5-1-1 Memory CH Settings

##### Frequency setup

Zone 1: Main (Left CH - 510)						
Frequency (MHz)						
CH	Atr	Inh	RX	TX	TX Inh	W/N
1- 1	AB		453.675000	<-		N

##### CH Name and RF PWR setup

Zone 1: Main (Left CH - 510)				
CH	Text	Com-pander	TOT	RF PWR
1- 1	IDAS Base		ON	L1

##### CH Type setup

Zone 1: Main (Left CH - 510)						
CH	CH Type	Signal	Auto Reset	CH Mute	Log-In/Off	Send Status
1- 1	Digital	5T	Tim-B	OR		Mobile

#### Unit ID and Squelch in Digital mode setup

Zone 1: Main (Left CH - 510)					
Digital					
CH	RX RAN	TX RAN	Unit ID	Talkgroup ID List No.	Squelch Type
1- 1	1	<-	5001	1	Sel

## 5 Cloning Settings

### 5-1-2 Digital Settings

#### Individual ID List setup

Digital - Individual - Individual ID List		
ID		
No.	ID	ID Name
1	5001	IDAS Base
2	1101	Icom-1
3	1102	Icom-2
4	1103	Icom-3

#### Talkgroup ID List setup

Digital - Talkgroup - Talkgroup ID List		
ID		
No.	ID	ID Name
1	1	Group 1
2	2	Group 2
3	65535	All Call

#### Status List setup - RX Status

Digital - Status - Status List	
RX Status	
No.	Display Text
1	In Service
2	Out to Lunch
3	Out of Serv.
98	Power ON
99	Power OFF

#### Status List setup - TX Status

Digital - Status - Status List	
TX Status	
No.	Display Text
100	GPS Request

#### Status Setup

Digital - Status - Status Setting	
Allow Poll	Inhibit
Poll TX	Enable
Power ON Status	Disable
Power OFF Status	Disable
Power Status ID	1
GPS Request Status	100
Log for Status Call	Inhibit
Request Ack	Enable
Send with Voice Call	
Disable	
Send Status Number	Last Status

#### SDM Setup

Digital - SDM - SDM Setting	
RX	Enable
Ringer	PIPi
Log for SDM	Enable
Request Ack	Enable

### 5-1-3 Common Settings for a Base Station

#### Key assign setup

Key & Display Assign		
Key		
Mobile / Portable		Conventional
P0 /	P0	Digital Button
P1 /	P1	Null
P2 /	P2	Status Up
P3 /	P3	Status Down
P4 /	Side1	Null
Up /	Side2	CH Up
Down /	Side3	CH Down

#### RS-232C setup

Common	
RS-232C	
Connection Speed	9600
Mode	PC CMD V2

#### Display setup

Key & Display Assign	
Display	
Opening Text	IDAS Base

## 5 Cloning Settings

### 5-2 Cloning settings for IDAS™ Field Radio

#### 5-2-1 Memory CH Setup

##### Frequency and attribution setup

Zone 1: Main (Left CH - 511)						
Frequency (MHz)						
CH	Atr	Inh	RX	TX	TX Inh	W/N
1- 1	ABE		453.675000	<-		N

**NOTE:** "E" tagged channel becomes the emergency channel, immediately recalled and sends an emergency signal by pushing [Emergency] key. Only 1 channel can be set.

##### CH Name and RF PWR setup for IDAS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)					
CH	Text	Com-pander	TOT	RF PWR	
1- 1	icom-1		ON	L1	

##### CH Name and RF PWR setup for IDAS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)					
CH	Text	Com-pander	TOT	RF PWR	
1- 1	icom-2		ON	L1	

##### CH Name and RF PWR setup for IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)					
CH	Text	Com-pander	TOT	RF PWR	
1- 1	icom-3		ON	L1	

##### CH Type setup

Zone 1: Main (Left CH - 511)						
CH	CH Type	Signal	Auto Reset	CH Mute	Log-In/Off	Send Status
1- 1	Digital	5T	Tim-B	AND		Mobile

##### Unit ID and Squelch setup for I DAS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)					
Digital					
CH	RX RAN	TX RAN	Unit ID	Talkgroup ID List No.	Squelch Type
1- 1	1	<-	1101	1	Sel

**NOTE:** The UNIT ID must be different for the transmitting radio and base station radio, otherwise the GPS data to own UNIT ID cannot be received.

##### Unit ID and Squelch setup for I DAS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)					
Digital					
CH	RX RAN	TX RAN	Unit ID	Talkgroup ID List No.	Squelch Type
1- 1	1	<-	1102	1	Sel

##### Unit ID and Squelch setup for I DAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)					
Digital					
CH	RX RAN	TX RAN	Unit ID	Talkgroup ID List No.	Squelch Type
1- 1	1	<-	1103	1	Sel

## 5 Cloning Settings

### 5-2-2 Digital Settings

#### Individual ID List setup

Digital - Individual - Individual ID List		
ID		
No.	ID	ID Name
1	5001	IDAS Base
2	1101	Icom-1
3	1102	Icom-2
4	1103	Icom-3

#### Talkgroup ID List setup

Digital - Talkgroup - Talkgroup ID List		
ID		
No.	ID	ID Name
1	1	Group 1
2	2	Group 2
3	65535	All Call

#### Status List – RX Status

Digital - Status - Status List	
RX Status	
No.	Display Text
1	In Service
2	Out to Lunch
3	Out of Serv.

98	Power ON
99	Power OFF
100	GPS Request

#### Status List – TX Status

Digital - Status - Status List	
TX Status	
No.	Display Text
1	In Service
2	Out to Lunch
3	Out of Serv.

98	Power ON
99	Power OFF

#### Status Setup

Digital - Status - Status Setting	
Allow Poll	Enable
Poll TX	Inhibit
Power ON Status	98
Power OFF Status	99
Power Status ID	1
GPS Request Status	100
Log for Status Call	Inhibit
Request Ack	Enable
Send with Voice Call	Enable
Send Status Number	Last Status

#### SDM List

Digital - SDM - SDM List	
No.	SDM
1	Accepted
2	Noted
3	On the way
4	5min Later
5	10min Later
6	15min Later

#### SDM Setup

Digital - SDM - SDM Setting	
RX	Enable
Ringer	PIPi
Log for SDM	Enable
Request Ack	Enable

## 5 Cloning Settings

### 5-2-3 GPS settings

GPS Common Setup for IDAS_GPS_Demo_Field_REVELOC_1_Ver2_0.icf

GPS Common	
Auto-Timed GPS Send	
Auto	Disable
Time Marker [mm:ss]	10:00
Interval Timer [mm:ss]	0:30

GPS Common Setup for IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf

GPS Common	
Auto-Timed GPS Send	
Auto	Enable
Time Marker [mm:ss]	10:00
Interval Timer [mm:ss]	0:30

### GPS Digital setup

GPS Digital Setting	
Send to Fixed ID	Enable
GPS Send ID	1
Send with Voice Call	Enable
Send with Status Call	Enable
Send with SDM Call	Enable
Send with Call Alert	Enable
Send with Emergency	Enable
Send at ManDown	Disable
Sentence	\$GPRMC

### 5-2-4 Common Settings

#### Key assign setup

Key & Display Assign		
Key		
Mobile / Portable		Conventional
P0 /	P0	Digital Button
P1 /	P1	Null
P2 /	P2	Status Up
P3 /	P3	Status Down
P4 /	Side1	Null
Up /	Side2	CH Up
Down /	Side3	CH Down
OPF0 /	Emer	Emergency

#### RS-232C setup

Common	
RS-232C	
Connection Speed	4800
Mode	GPS

Display Setup for IDAS_GPS_Demo_Field_REVELOC_1_Ver2_0.icf

Key & Display Assign	
Display	
Opening Text	IDAS Radio 1

Display Setup for IDAS_GPS_Demo_Field_REVELOC_2_Ver2_0.icf

Key & Display Assign	
Display	
Opening Text	IDAS Radio 2

Display Setup for IDAS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf

Key & Display Assign	
Display	
Opening Text	IDAS Auto

## 5 Cloning Settings

### 5-3 Cloning settings for BIIS Base Station

#### 5-3-1 Memory CH Settings

##### Frequency setup

Zone 1: Main (Left CH - 510)						
Frequency (MHz)						
CH	Atr	Inh	RX	TX	TX Inh	W/N
1- 1	AB		453.675000	<-		N

##### CH Name and RF PWR setup

Zone 1: Main (Left CH - 510)					
CH	Text	Com- pander	TOT	RF PWR	
1- 1	BIIS Base			L1	

##### CH Type setup

Zone 1: Main (Left CH - 510)						
CH	CH Type	Signal	Auto Reset	CH Mute	Log- In/Off	Send Status
1- 1	Analog	MSK	Tim-B	AND	L-OFF	Mobile

##### MSK Signaling setup

Zone 1: (Left CH - 496)							
Switch Action				MSK Signaling			
CH	Moni	Sel	Call	PTT	RPT ID	STN ID	Receive ID
1- 1	In_A+R1	In_A				1	1

#### 5-3-2 MSK Settings

##### ID Code setup

**NOTE :** The ID Code must be 1001 for this demonstration because the default ID has been fixed in the Reveloc software.

MSK - Own ID / Group		
ID Code		
No.	ID	Display Text
0	1001	BIIS Base

##### Call List setup

MSK - Call List			
No.	ID	Input Digit	Text
1	1001	234	BIIS Base
2	1201	234	BIIS-1
3	1202	234	BIIS-2
4	1203	234	BIIS-3

##### Status Message setup - RX Status

MSK - Message - Status	
RX Status	
No.	Display Text
1	In Service
2	Head to Pick
3	In the Queue
4	RTN to Base
5	Out to Lunch
19	Power OFF
20	RX Status 20
21	RX Status 21
22	Emergency
23	Power ON
24	GPS Request

##### Status Message setup - TX Status

MSK - Message - Status	
TX Status	
No.	Display Text
24	GPS Request

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## 5 Cloning Settings

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### 5-3-3 Common Settings

#### Key assign setup

Key & Display Assign		
Key		
Mobile / Portable		Conventional
P0 /	P0	Null
P1 /	P1	BIIS Button
P2 /	P2	Status Up
P3 /	P3	Status Down
P4 /	Side1	Call
Up /	Side2	CH Up
Down /	Side3	CH Down
OPF0 /	Emer	Null
OPF1 /	—	Null
OPF2 /	—	Null
— /Ext.	Emer	Disable

#### RS-232C setup

Common	
RS-232C	
Connection Speed	9600
Mode	PC CMD

#### Display setup

Key & Display Assign	
Display	
Opening Text	BIIS Base

## 5 Cloning Settings

### 5-4 Cloning settings for BIIS Field Radio

#### 5-4-1 Memory CH Setup

Frequency and attribution setup

Zone 1: Main (Left CH - 511)						
Frequency (MHz)						
CH	Atr	Inh	RX	TX	TX Inh	W/N
1- 1	ABE		453.675000	<-		N

**NOTE:** "E" tagged channel becomes the emergency channel, immediately recalled and sends an emergency signal by pushing [Emergency] key. Only 1 channel can be set.

CH Name and FR PWR setup for BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)				
CH	Text	Com-pander	TOT	RF PWR
1- 1	BIIS-1			L1

CH Name and FR PWR setup for BIIS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)				
CH	Text	Com-pander	TOT	RF PWR
1- 1	BIIS-2			L1

CH Name and FR PWR setup for BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf.

Zone 1: Main (Left CH - 511)				
CH	Text	Com-pander	TOT	RF PWR
1- 1	BIIS-3			L1

CH Type setup

Zone 1: Main (Left CH - 511)						
CH	CH Type	Signal	Auto Reset	CH Mute	Log-In/Off	Send Status
1- 1	Analog	MSK	Tim-B	AND		Base

Switch Action Setup

Zone 1: Main (Left CH - 511)				
Switch Action				
CH	Moni	Sel	Call	PTT
1- 1	In_A+R1	In_A		

MSK Signaling setup

Zone 1: Main (Left CH - 511)			
MSK Signaling			
CH	RPT ID	STN ID	Receive ID
1- 1		1	1

## 5 Cloning Settings

### 5-4-2 MSK Settings

ID Code Setup for BIIS_GPS_Demo_Field_1_REVELOC_Ver2_0.icf

MSK - Own ID / Group		
ID Code		
No.	ID	Display Text
0	1201	BIIS-1

ID Code Setup for BIIS_GPS_Demo_Field_2_REVELOC_Ver2_0.icf

MSK - Own ID / Group		
ID Code		
No.	ID	Display Text
0	1202	BIIS-2

ID Code Setup for BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf

MSK - Own ID / Group		
ID Code		
No.	ID	Display Text
0	1203	BIIS-3

#### Call List setup

MSK - Call List			
No.	ID	Input Digit	Text
1	1001	234	BIIS Base
2	1201	234	BIIS-1
3	1202	234	BIIS-2
4	1203	234	BIIS-3

#### Status setup

MSK - Config.	
Status Setting	
Fixed Base ID	1001
Send Status on PrioA CH	Disable
Power ON Status23	Enable
Power OFF Status19	Enable

### Status Message - RX Status

MSK - Message - Status	
RX Status	
No.	Display Text
1	In Service
2	Head to Pick
3	In the Queue
4	RTN to Base
5	Out to Lunch
19	Power OFF
20	RX Status 20
21	RX Status 21
22	Emergency
23	Power ON
24	GPS Request

### Status Message - TX Status

MSK - Message - Status	
TX Status	
No.	Display Text
1	In Service
2	Head to Pick
3	In the Queue
4	RTN to Base
5	Out to Lunch
19	Power OFF
20	RX Status 20
21	RX Status 21
22	Emergency
23	Power ON
24	GPS Request

### SDM

MSK - Message - SDM	
No.	SDM
1	Accepted
2	Noted
3	On the way
4	5min Later
5	10min Later
6	15min Later

## 5 Cloning Settings

### 5-4-3 GPS settings

GPS Common Setup for BIIS_GPS_Demo_1_Field_REVELOC_Ver2_0.icf

GPS Common	
Auto-Timed GPS Send	
Auto	Disable
Time Marker [mm:ss]	10:00
Interval Timer [mm:ss]	0:30

GPS Common Setup for BIIS_GPS_Demo_Field_Auto_REVELOC_Ver2_0.icf

GPS Common	
Auto-Timed GPS Send	
Auto	Enable
Time Marker [mm:ss]	10:00
Interval Timer [mm:ss]	0:30

### GPS MSK Setup

GPS MSK Setting	
Send GPS fix to Base	Enable
Fixed Base ID	1001
Send with Logoff	Disable
Send with Status	Enable
Send with SDM	Enable
Send with Emergency	Enable
Send at ManDown	Disable
Sentence	\$GPRMC

### 5-4-4 Common Settings

#### Key assign setup

Key & Display Assign		
Key		
Mobile / Portable		Conventional
P0 /	P0	Null
P1 /	P1	BIIS Button
P2 /	P2	Status Up
P3 /	P3	Status Down
P4 /	Side1	Call
Up /	Side2	CH Up
Down /	Side3	CH Down
OPF0 /	Emer	Emergency
OPF1 /	—	Null
OPF2 /	—	Null
— /Ext.Emer		Null

#### RS-232C setup

Common	
RS-232C	
Connection Speed	4800
Mode	GPS

Display Setup for BIIS_GPS_Demo_1_Field_REVELOC_Ver2_0.icf

Key & Display Assign	
Display	
Opening Text	BIIS Radio 1

Display Setup for BIIS_GPS_Demo_2_Field_REVELOC_Ver2_0.icf

Key & Display Assign	
Display	
Opening Text	BIIS Radio 2

Display Setup for BIIS_GPS_Demo_Auto_Field_REVELOC_Ver2_0.icf

Key & Display Assign	
Display	
Opening Text	BIIS Auto

## 6 GPS Receiver connection with Mobile Radio

### 6-1 “Byonics GPS2” GPS Receiver

Contact detail;



Byonics

8378 Granite Mountain Lane

Las Vegas, NV 89129

United States

Telephone/Facsimile: +1 (206) 203-4064

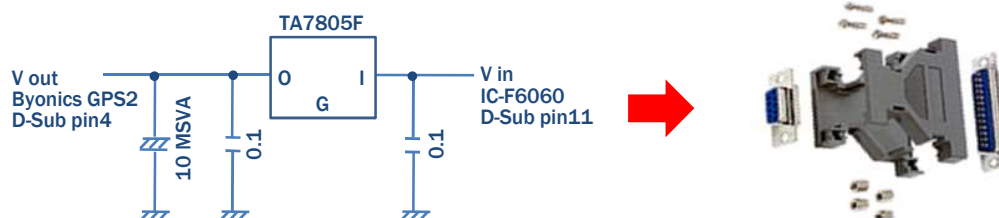
Email: tt@byonics.com

Web: http://www.byonics.com/

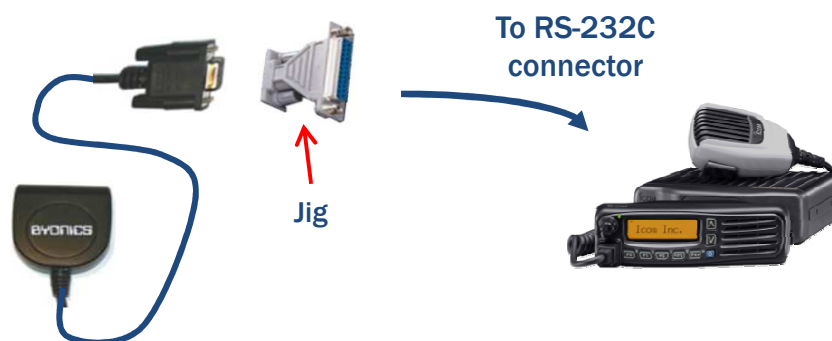
#### ➤ Wiring for Byonics GPS2)

GPS D-Sub 9pin	Pin No		Pin No	IC-F6060 D-Sub 25pin
Serial Out	2	↔	2	RXD
5V IN	4	JIG	11	VCC
GND	5	↔	7or14	GND

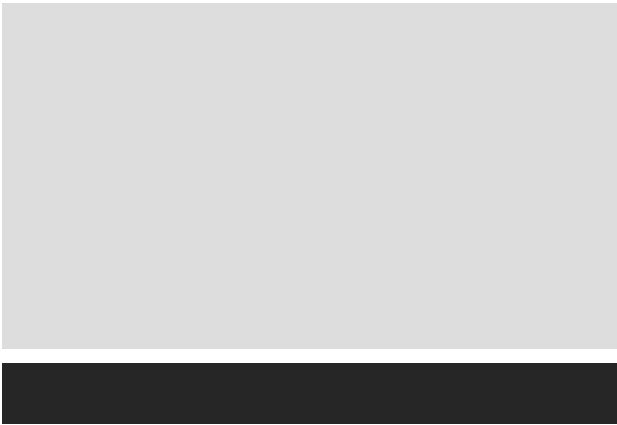
#### ➤ The sample circuit diagram of Jig (5V Regulator)



#### ➤ Connection



Count on us!



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